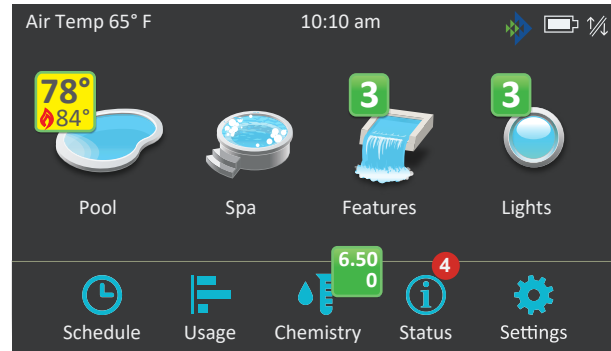




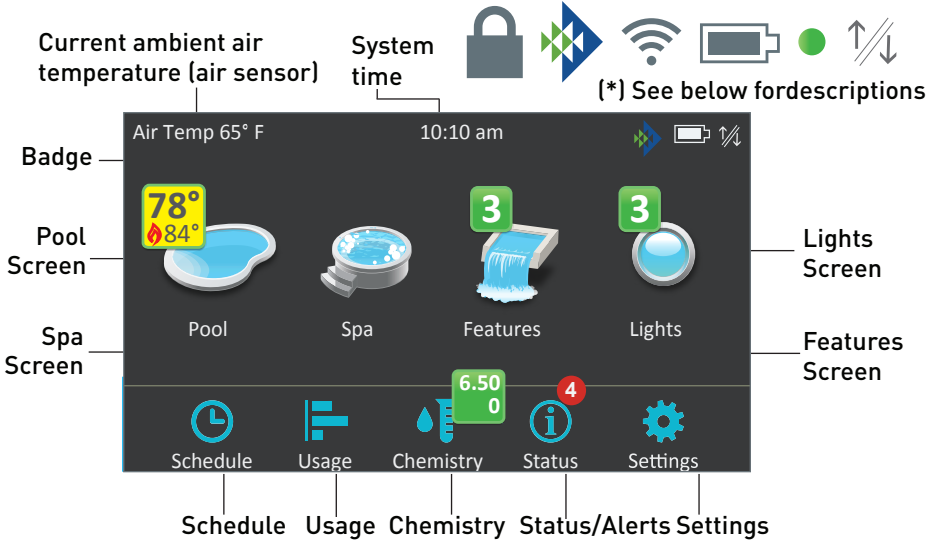
INTELLICENTER® CONTROL SYSTEM QUICK REFERENCE GUIDE

- Home Screen 1
- Pool/Spa Systems 2
- Passcode Protect Features 2
- Home Screen Icons 2
- Pool 3
- Spa 4
- Features 5
- Lights(GROUPS) 6
- Lights(GloBrite White Light & Dimmer) 8
- AUX Circuits(Feature Circuits) 9
- Groups(Circuit/Light)-Settings 10
- Pumps 10
- Chemistry(IntelliChlor / IntelliChem) 11
- Heaters 12
- Schedules 13
- Service Mode 15
- System(Firmware Update) 15
- Security(Passcode) 16
- Pentair User Portal(www.intellicenter.com) 16

- Internet Connection Test 16
- Delays(Advanced System Configuration) 17
- IntelliCenter Control System Menu 17
- Setup Wizard(Advanced System Configuration) 18
- IntelliCenter Control System Menu 19
- Internet Setup fpr IntelliCenter Control System 20



Home Screen



- Schedule Icon:** Setup daily pool/spa operations.
- Usage Icon:** Keep track of pool/spa equipment usage data.
- Chemistry Icon:** Access sanitizer controls (IntelliChem® Controller, IntelliChlor® SCG).
- Status Icon:** View the current pool/spa status/alerts.
- Settings Icon:** Setup and configure the system (IntelliChem® Controller installed equipment).

(* Connection indicators on the Indoor and Wireless Control Panel. **Padlock:** Home screen is passcode protected. Requires password to access the Home screen. **Pentair logo:** Connection to intelllicenter.com server. **Battery Icon:** Wireless Control Panel battery indicator. **Green/Amber/Red Dot:** Display on the Expansion Panel(s). **Green:** Indicates connection with the main Outdoor Control Panel. **Amber:** Synchronizing with the outdoor control panel. **Red:** No connection to the Outdoor Control Panel. **Ethernet Icon:** Ethernet connection with the Outdoor Control Panel.

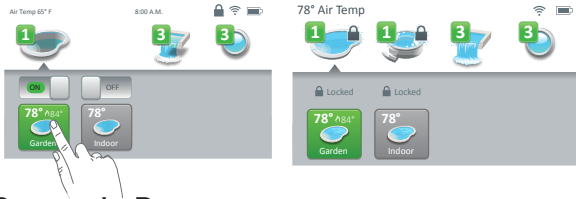
<p>Pool Tap the Pool icon to access the Pool screen: Turn On/Off pool filter pump and heater. Set pool water temperature. Also, screen two displays up to six AUX circuits (On/Off)</p> <p>Features Tap the Features icon to access the Features screen: Turn On/Off an individual circuit or a group of circuits. A Green number badge displays the number of active feature circuits.</p>	<p>Spa Tap Spa icon to access the Spa screen: Turn On/Off Spa pump and heater. Set Spa water temperature. Also, displays up to six AUX circuits (On/Off)</p> <p>Lights Turn individual/groups of lights ON/OFF. Color Lights: - All ON/OFF - Color Set/Edit - Color Sync - Color Swim/Edit. IntelliBrite® Lights: - Preset shows - Color presets - Capture color MagicStream® Laminals</p>
---	--

Display (Day/Night Theme)
For optimal screen viewing, the color touch screen can be set for daylight, or night time viewing.

To change the Day/Night Theme: From the Home screen, tap Settings > General > Day/Night Themes. Select Day Theme, Night Theme or Transition Type (Manual or Auto).

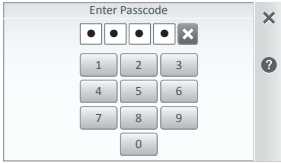
Tap Up/Down Arrows: To view multiple screens, tap the UP/Down arrows located on the right side of the screen to move vertically to the next screen or return to the previous screen.

Pool/Spa Systems



Pool/Spa Systems: The default system configuration on the Home screen displays a Pool and Spa (shared equipment - model i5PS, i8PS, or i10PS). A single body of water (model i5P, i8P, or i10P) uses one set of equipment for a single body of water (pool or spa). Model i10D can be configured for two separate bodies of water (Pool, Pool, or Spa, Spa). Using the lower drawers On/Off slide button, allows manual control of each separate equipment for the pool or spa filter pump and heater. Up to two bodies maximum of water can be displayed. The current settings are displayed above the pool and spa the icon. *Note: To configure the pool and spa systems, see Settings > Advanced System Configuration > Installation Setup > Body configuration.*

Passcode Protect



Passcode Protect: When a screen or individual screen item is Passcode protected a lock icon is displayed. To access the Passcode protected screen or item, tap on the screen icon to display the Passcode four digit screen. Enter the four digit Passcode. After the Passcode is entered, the screen can be accessed.



Tap number key pad to enter the four digit Passcode to access the Passcode protected screen.

Home Screen and Status Icons

- Green:** System status is good (OK)
- Blue:** Status Info.
- Orange:** Warning status condition.
- Red:** Alert status condition:
- Features and Light Green Number Badge:** Indicates the number of Features or lights currently activated.
- Status Icon Number Badge:** Number of Alerts and Warnings present in the Status Screen. See Alerts & Notifications Screen. Note: Show/hide Status Badge icons, see Settings > Alerts and Notifications.



Home Screen Pool and Spa Badges: Green: Schedule Status. A Green (Schedule) badge displayed on the Home screen Pool/Spa icon indicates that a programmed schedule is in progress. Note: Shared equipment one badge for each body.



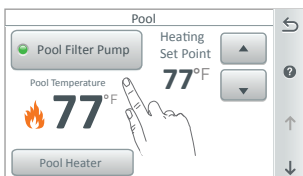
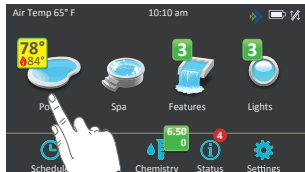
A Yellow Badge (pump turned on) indicates a delay is in progress. **Delays:** (Heat Cool-Down (pump), Valve Rotation Delay, Pump Priming). *To show or hide the Yellow and Blue badge, from the Home screen tap Settings > General > Badge Colors.*



A Blue Badge indicates that the Pool/Spa pump has been turned on. Example: Using Override Delays - Go to Delays and tap Override Delays. Override Delays will cancel all active delays. If a Schedule is running, a Green Badge will display. If the pool/spa pump is manually enabled (ON/OFF), a Blue badge will display.

Badge color changing sequence: Yellow changes to Green: A Schedule has started running.
Yellow changes to Blue: Pool/Spa pump has been manually turned ON. **Blue:** Will stay on until pool/spa pump is manually turned off. Note: Blue Badge will stay on for the Egg Timer duration (12 Hrs. default). If the Egg Timer is set to **Don't Stop** the Schedule will run continuously until manual switched off.

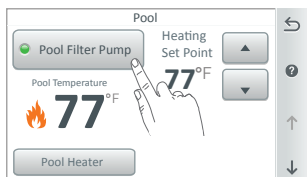
Pool



The Pool screen displays the current pool water temperature and heat source set point temperature. Tap the Heater button to select the heat source. Select OFF for no heater installed.



To display the Pool screen, tap Pool on the Home screen. **Pool Badge Icons:** A **Flame icon** (heat source active) is displayed with the current heat set point temperature. A **Snow Flake icon** indicates the UltraTemp Heat Pump or Solar Heat (if enabled) is in cooling mode. A **Sun icon** indicates solar heat is active. Select the heat source from the Select Heat Source screen.



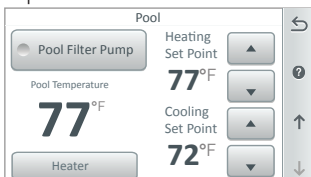
Pool Filter Pump On/Off: Tap this button to switch the pool filter pump on or off and to activate the heater (if a heater source is selected).

Note: The heater will activate when the pool pump is on and the temperature Set Point is above the current temperature reading.

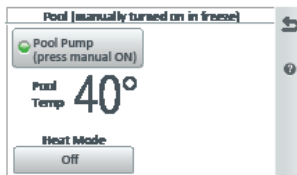
Pool Temperature: Displays the current pool water temperature.

Heating Set Point: Use the Up/Down button to increase or decrease the pool water set point temperature.

Pool Heat Mode Button: Tap this button access the Select Heat Mode screen. Heat Mode options are Off, Gas, Solar, Solar Preferred, Heat Pump (Preferred), UltraTemp Preferred, Hybrid. Select OFF for no heater installed. When the heater is turned on the heater will activate when the pool pump is on and the temperature Set Point is above the current temperature reading. See Settings > Advanced System Configuration > Installation Setup > Heaters.



Nocturnal Cooling Set Point Temperature control for Heat Pump or Solar: If using a heat pump, use the Cooling Set Point temperature or solar heat control buttons displayed on the Pool and/or Spa screen to adjust the nighttime temperature of the pool/spa water. **Solar Heater:** Nocturnal (nighttime) feature provides automatic cooling during night time hours for pools that overheat in hot climates to circulate the pool water to the collector panels when the collector temperature and the pool temperature is hotter than the high limit setting. This process cools the pool water over time. Note: This feature is also used for UltraTemp/Hybrid and a Heat Pump..



Schedules (Heat Source and Set Temperature): See Schedules to schedule the pool/spa pump to turn on at a specific time to pre-heat the pool or spa water. From the Schedules Weekly or One Time Only option, select "Heat Source" and select a heat source, then set the Set Temperature settings.

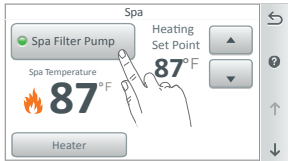
Spa Freeze Override Time (0-240 min (4 hrs): Override the spa pump circuit that has freeze protection active to run the pump and heat the spa during freezing temperatures. This also applies if a schedule is running. **Freeze Cycle Time (min):** Set the freeze protection time from 5 to 60 minutes to run the pump during freezing temperatures. Default time is 5 minutes. See Settings > Advanced System Configuration > Delays.

Spa Freeze Override Time (0-240 min (4 hrs) - See Delays.

Spa

Tap the Home screen Spa icon to display the Spa Pump control settings screen. From this screen tap the Spa Pump button to activate the Spa heat source. A Blue badge displayed on the Spa icon indicates the Pool/Spa pump button has been manually turned on. The Blue badge displays until the pump button is turned off. The badge displays the current pool water temperature. If there is a heat source active, a flame icon is displayed with the pool water set point temperature source.

Spa Badge Icons: A Flame icon indicates that the heat source has been called for. A Snow Flake icon indicates the UltraTemp Heat Pump or Solar Heat (if enabled) is in cooling mode. A Sun icon indicates solar heat is active. Select the heat source from the Select Heat Source screen.

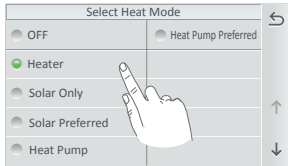


Spa Pump On/Off: Tap this button to switch the spa filter pump on or off and to activate the heater; if a heater source is selected. See Spa Heater button. **Note: The heater will activate when the pool pump is on and the temperature Set Point is above or equal to the current temperature reading.**

Spa Temperature: Displays the current spa water temperature in Fahrenheit.

Heating Set Point: Use the Up/Down button to increase or decrease the spa water set point temperature.

Spa Heat Mode Button: Tap this button access the Select Heat Mode screen. Heat Mode options are Off, Gas, Solar, Solar Preferred, Heat Pump (Preferred), UltraTemp Preferred, Hybrid Preferred. Select OFF for no heater installed. When the heater is turned on the heater will activate when the pool pump is on and the temperature Set Point is above the current temperature reading. **Note: Heaters are configured from Settings > Advanced System Configuration > Installation Setup > Heaters.**

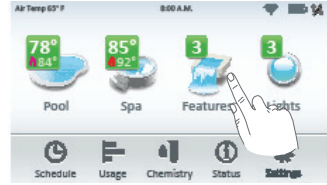


Spa Manual Heat ON/OFF: If Spa Manual Heat is ON and the Spa pump button (or from the Spa-Side remote, or Wireless Controller) is turned on, the pump will turn on and the heater will begin to heat the spa (even if the heater is set to OFF). This feature allows you to program the pool pump to filter daily with the heater set to off, and then be ready to heat whenever the Spa button is pressed. Heat Enabled is switched on by default. *See Settings > Advanced System Configuration > Installation Setup > Spa Body Configuration > Spa Settings.*

Also see, Manual OP Priority: This feature allow for a circuit to be manually switched OFF and switched ON within a scheduled program, the circuit will continue to run for a maximum of 12 hours or whatever that circuit Egg Timer is set to, after which the scheduled program will resume. This feature will turn off any scheduled program to allow manual pump override. Default is OFF. *See Settings > General > Manual Operation Priority.*

Features (Individual/Groups Circuits)

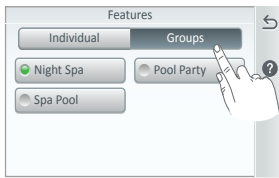
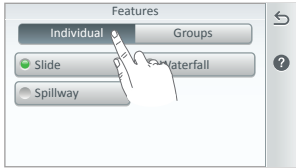
Up to 32 individual or Groups of Feature Circuits can be assigned as a Generic circuit or a Spillway circuit. Tap Features on the Home screen to display the Feature circuits screen. From the Features screen you can manually turn on or off an individual Feature circuit or a group of Features circuits. To assign Feature Circuits, see Settings > Advanced System Configuration > Installation Setup > Circuits > Feature Circuits .



Features Individual/Groups: From the Features screen you can manually turn on or off individual or Groups of lights or individual circuits for pool devices. Lights and auxiliary circuits (equipment) displayed are configured from Settings > Advanced System Configuration > Installation Setup > Circuits > Feature Circuits. Tap Return Arrow to return to the Home screen.

Tap Individual or Groups to display the available feature or group of circuits to switch on or off.

Example: Set different pump speed using IntelliFlo® pump: To manually control different pump speeds, assign each feature circuit a different pump speed.



Note: Functions for circuits GROUPS are assigned in Settings > Advanced System Configuration > Installation Setup > Circuits.

Feature Circuit (Generic or Spillway): Tap on Circuit Type (function) and select either Generic or Spillway.

Note: Assign the Feature Circuit Name, Visible in Features, Egg Timer (12 Hr. Default), Don't Stop (Continuous) and Freeze Protection.

Home screen Features Green Badge: Displays the number of active feature circuits. To display circuits in the Features screen, see Settings > Advanced System Configuration > Installation Setup > Circuits > Feature Circuits > Feature Circuit Settings (Visible in Features (Y/N) option).

Lights

From the Lights screen you can manually turn on or off individual or groups of lights. Lights displayed in the Lights screen are configured from (Settings > Advanced System Configuration > Installation Setup > Circuits). To access the Lights screen, tap the Lights icon on the Home screen. Tap the Return Arrow to return to the Home screen. Note: A Green Number Badge displayed on the Home screen Lights icon, shows the number of lights on. Light circuits settings include Egg Timer & Freeze Protect options.



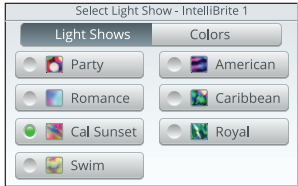
All On/All Off Button: Tap this button to turn all light circuits On or Off. **Light circuits include:** IntelliBrite®, ColorCascade®, GloBrite® Light (Color and White), Dimmer and MagicStream® lights):



Light ON/OFF Button: From the Lights screen, tap the **Individual** button to display the assigned light circuits. Tap the light name button to switch the light ON or OFF. Tap Return Arrow to return to the Home screen.

Four Color Dots Edit Button: Tap this button to display the Light Shows/Colors screen. Light Color options are: **White, Blue, Red, Green and Magenta.** **Note: Color choice is light dependant. Some lights only display white.**

Select a Light Show: From the Light Shows screen, tap one of the displayed Light Shows buttons to switch the light show on or off. Light Show options are: **SAM, Romance, American, Royalty, Party, Caribbean, and Sunset.**



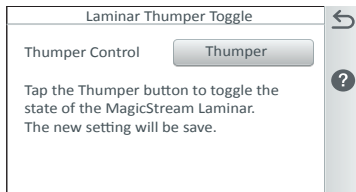
Select a Light Color: From the Colors screen, tap one of the displayed Color buttons switch the light color on or off.

Tap **Check** to return to the Lights screen. Tap the light name button to switch the light on or off. Tap the **Return** arrow on the Light screen to return to the Home screen.

Light Shows Screen



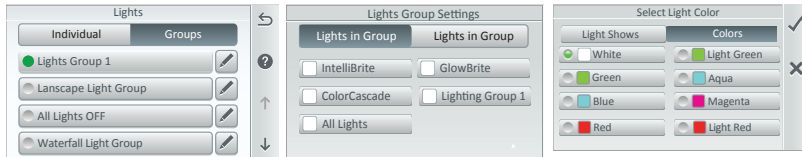
Light Colors Screen



Gears Icon: Tap the Gears icon to access the **MagicStream laminar Thumper** feature. Tap the Thumper button to activate the built-in light solenoid to create a random wrinkle in the laminar's water stream and display a brilliant spot of light that moves along the stream's arc.

Lights (Groups)

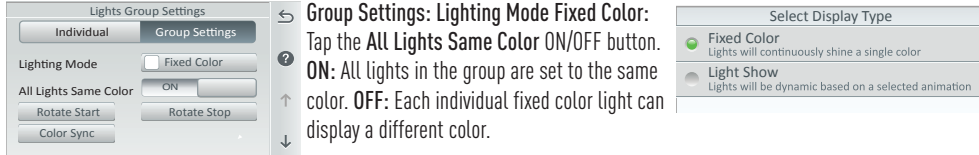
From the Lights > Groups screen you can manually turn on or off a selected groups of Lights. Light Groups displayed in the Lights screen are configured from the Settings > Advanced System Configuration > Installation Setup > Circuits > AUX Circuits screen. To add a group of lights, tap the Four Dots icon to display the Groups screen.



Light Groups: Tap the Edit Pencil icon to display the Light Settings screen. Tap **Light in Group** or **Group Settings** to change the light Fixed Color and Light Shows in a selected group of lights.

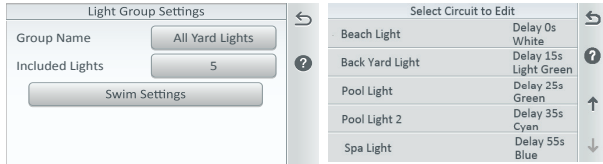
Lights In Group: This screen displays the light colors in the light group. **Change a Fixed Color:** Tap on a light color button type to display the available fixed colors to choose from.

Tap Check to view the changed fixed color.



Group Settings: Lighting Mode Fixed Color:
Tap the **All Lights Same Color ON/OFF** button.
ON: All lights in the group are set to the same color. **OFF:** Each individual fixed color light can display a different color.

Change a Fixed Colors to a Light Show: Tap the Groups Settings button, Tap the Lighting Mode button (Fixed Color) and select Light Show. Select one of the Light Shows. Tap the Check to return to the Light Settings screen.



The Light Groups Sync, Swim and Set SAM feature are configured from Settings > Groups.



Edit (Pencil): Display the Light Settings screen.

Lights in Groups: Displays the light circuit name and color. Note: All light will display the same color if **All Light Same Color** is enabled (ON) from the Group Settings screen. To display different fixed colors for each light, select **All Light Same Color (OFF)**.



Sync: Tap this momentary button to synchronize (Green light on) all IntelliBrite lights in the group. The Light in the group will go to the beginning of the SAM rotation. After 21 seconds the lights will start rotating each time the button is tapped.



Color Set: Tap this momentary button to activate (Green light on) to set the default color for each light then stop the light on one of the selected 8 colors. To change the light color or the light delay (from 0 to 60): Tap Settings > Groups. Select the group of lights to change. Tap Color Settings. Set the delays between the lights from 0 to 60 sec.



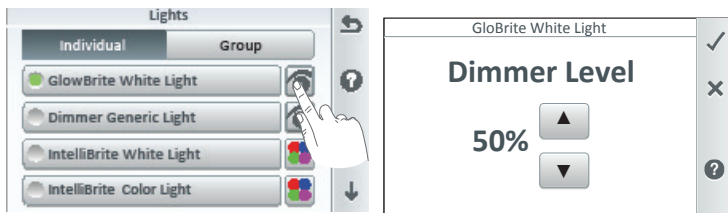
Swim (Color Swim): Tap this momentary button to activate (Green light on) an effect of moving colors across the pool. From the Swim Settings Delays screen set a delay between the lights so that the first light syncs and starts rotating, then the second light starts rotating after that, and the third light rotates after that with a delay between the lights.

Lights (GloBrite White Light ans Dimmer Circuit)

From the Lights screen you can manually turn on or off individual or Groups of GlowBrite or Dimmer lights. Lights displayed in the Lights screen are configured from the Circuits screen. To access the Lights screen, tap the Lights icon on the Home screen. Tap the light name to manually switch the light circuit on or off (Green light indicates the light is on). **Note: A Green number badge displayed on the Home screen Lights and Features icon, indicates the number of individual and/or groups of lights currently turned on. To hide the number badge on the Features icon, turn Visible in Features OFF.**



Configure a GloBrite White Light and Dimmer Light: Go to Settings > Advanced System Configuration > Installation Setup > Circuits. Select AUX Circuits, select the light AUX circuit, tap Circuit Function and select GlowBrite White or Dimmer.



Dimming Lights (50%, 75%, 100%)

Lights that have dimming functionality can be dimmed from the Lights screen. Only incandescent tungsten filament lights may be dimmed. IntelliBrite, Fiber-optic, or Halogen lights cannot be dimmed. The feature circuit must be assigned a Dimmer circuit function. **Note: Feature Circuits can turn on light dimming circuits, but lights cannot be dimmed using this feature. The dimming level must be changed for each light dimming circuit.**

GloBrite & Dimmer Edit Button:



Tap this edit button to display the Dimmer level screen. **Note: To assign a GloBrite White Light or Dimmer circuit, go to Settings > Advanced System Configuration > Installation Setup > Circuits.**

GloBrite White Light Dimmer Level: Use the Up/Down arrow button to increase or decrease the brightness levels of the light. Brightness levels are from 50%, 75% and 100% increments.

GloBrite White & Dimmer ON/OFF Button: On the Lights screen, tap the Individual button to display the assigned light circuits. Tap the GloBrite White light or the Dimmer Generic Light button to switch the light on or off. Tap Return Arrow to return to the Home screen.

AUX Circuits and Feature Circuits

AUX Circuits: Tap AUX Circuits to display the available AUX circuits to assign. Tap the AUX Circuit (Function name) to assign a function (Type) to the circuit.

Circuit Name: Select one of the displayed circuit names and tap Check to save. To customize a circuit name, tap on the Keyboard icon on the right side of the screen and enter the new name.

Circuit Type (Function): Assign the circuit type. For a complete list of Circuit Types.

Visible in Features (Lights and Generic Circuits only): Select ON to display this circuit in the Home, Features screen. **Egg Timer:** Set manual timeout delay (hrs/mins - 12 Hrs default) for the circuit, once it's turned on. **Freeze Protection:** Assign freeze protection for this circuit. When Freeze Protect is enabled, Freeze Protect Active is displayed on the Home screen.

Feature Circuits: Up to 32 individual Feature Circuits can be assigned as **Generic circuits or Spillway (Pool/Spa)** circuits. A Feature Circuit can be assigned to activate the Spa Spillway effect, where in a pool/spa combination, pool water is diverted to the spa then spilled back into the pool.

Circuit Function (Generic or Spillway): Tap on Circuit Function and select either Generic or Spillway. Note: Assign the Feature Circuit Name, Visible in Features, Egg Timer, Don't Stop and Freeze Protection. **Home Screen Features Green Badge:** Displays the number of active feature circuits. To display circuits in the Features screen, see Settings > Advanced System Configuration > Installation Setup > Circuits > Feature Circuits > Feature Circuit Settings (Visible in Features (Y/N) option).

+ New Feature Circuit Function (Generic or Spillway): Tap New Feature Circuit to create a new Feature Circuit (up to 32 total). Select a Circuit Name, then tap the name of the new Feature Circuit and Type (function), Generic or Spillway. **Feature Circuit Settings:** Select the Circuit Type, Circuit Name. **(*) Circuit Type (Function):** Tap Generic and select either Generic or Spillway for the circuit type. Tap Check to return to the previous screen. **Visible in Features:** Select ON or OFF to display the Feature Circuit in the Feature screen (Home screen).

Egg Timer: Set one time duration of 0 to 12 hours. **Freeze Protection:** Assign freeze protection for this circuit.

Create Groups (Lights/Circuits): From Settings > Groups (Light Group and Light Group) you can create a group of Lights or auxiliary Circuits. These Groups of lights and auxiliary circuits are displayed in the Features > Groups screen. You can also create groups of auxiliary and light circuits in the GROUPS screen which will be displayed in the Features > Groups screen.

Create Groups of Circuits (4 Dots Icon): Tap this icon on right side of the AUX Circuits screen to create Groups of circuits. Select either the **Light Group or Circuit Group**. Enter a name for the group of lights or circuits. Tap the Circuit Group name. Tap **Included Circuits** and select the circuits to include in the group. A Feature Circuit (Circuit) is assigned special logic to the circuit. For example, an automatic pool cleaner pump, would assign the circuit type Master Cleaner.

Advanced Circuit Settings: Tap Advanced Circuit Settings to access the circuit ON/OFF buttons. From this screen you can select each assigned circuit in the Group Circuits to be ON or OFF.

Note: Group Circuits are assigned in Settings > Advanced System Configuration > Installation Setup > Circuits. **Note:** For more information about AUX Circuits and Feature Circuits, See Advanced System Configuration > Installation Setup > Circuits > AUX Circuit - OCP 0 or Feature Circuits.

(*) CIRCUIT TYPES (FUNCTIONS): Generic, Spillway, Master Cleaner, Chem Relay, Light, IntelliBrite®, GloBrite®, GloBrite White, MagicStream® (IntelliBrite), Dimmer, ColorCascade®, Master Cleaner B.

AUX Circuits		✕
AUX 1 Circuit Function: IntelliBrite	Pool Light	?
AUX2 Circuit Function: Booster Pump	Booster Pump	⋮
AUX4 Circuit Function: Generic	AUX 3	↑
Waterfall Circuit Function: Generic	AUX 4	
AUX 6 (XP1) Circuit Function: Generic	AUX 6	↓
Group Type		↶
Light Group		
Circuit Group		?

AUX Circuits and Feature Circuits (Continued) Groups (Circuit/Light) (Settings)

The Groups feature allows multiple circuits to be grouped together and assigned to one ON/OFF button that is displayed on the Home screen Features Groups screen. Note: Groups of circuits can be selected from the CIRCUITS, and LIGHTS.

+Add Group (Circuits): Tap Add Group, and select Circuit Group, and enter a name for the selected Circuit Group. Tap Check to save the Circuit Group name and continue to the Circuit Group Settings screen. Tap the group name from the Groups list.

Delete Groups: Tap the Trash icon; check the desired Circuits or Light Group to delete. Tap Yes to delete.

Nested Groups: If necessary, it is possible to create a Group of circuits within another Group of circuits, as long as they are from the same group (Light, or Circuit).

Note: Circuits grouped together can be switched ON/OFF from one button in the Features (Circuits), Lights (circuits) on the Home screen.

Light or Circuit Group Settings:

Group Name: Tap the name bar to access the keyboard screen. Enter a name for the groups of circuits.

Included Lights (or Circuits): Tap the Included Circuits number bar to access the available AUX circuits. The AUX circuits displayed depend on the model of the Personality Card installed. AUX circuits are assigned in the AUX circuits screen. For more information, see, Advanced System Configuration > Installation Setup > Circuits > AUX Circuit - OCP 0 or Feature Circuits.

Egg Timer: Tap the button and set the timer from 0 to 12 hours.

Don't Stop: Tap the Hours Up button until 23 Hours displays, tap once again to display DO NOT STOP. Once the circuit is switched on, it will remain on until it is manually switched off.

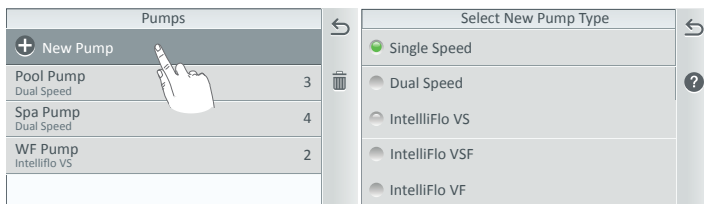
Note: The Egg Time sets a specified time delay (hrs/mins) for the circuit to function once it is turned on.

Swim Settings (Lights only): Tap the Swim Settings button and adjust the delay between each light from 0 to 59 seconds. This feature synchronizes any IntelliBrite® or Landscape color lights. The color swim effect starts from the first light, then the color change is delayed across to the adjacent lights creating a wave delay effect. For more information about light features, see Circuit Type in Advanced System configuration > Installation Setup > AUX Circuits > AUX Settings (Circuit Type).

Pumps

+ Add Pump: To configure a new pump, tap + Add Pump to access the Select New Pump Type screen to setup the pump settings. Pump types are: **Single Speed, Dual Speed, IntelliFlo VS, IntelliFlo VSF, and IntelliFlo VF.**

Single Speed Pump Settings: From the Single Speed Pump Settings screen you can change the pump type, name and assign the pump to a body of water (pool, spa, or pool/spa).



Dual Speed Pump Settings: Pump Type, Pump Name, Body, and High/Low Speed Circuits. For information about priming the pump.

Pump Type: To change the pump type, tap Pump Type button to access the pump type screen. Select the pump for the list. Tap Check to save the new pump type and return to the previous screen.

Pumps (Continued)

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Check to save the name and return to the previous screen.

Body: Assign the pump to a body of water (pool, spa, or pool/spa (shared equipment)).

High Speed Circuits: Select a circuit for the high speed. You can choose up to eight (8) high speed circuits. Tap the High Speed Circuits button. Tap Add Circuit and select an AUX circuit to assign the high speed to. Tap Check to save the circuit and return to the previous screen.

IntelliFlo VS Settings: Pump Type, Name, Address (1-16), Min. Speed (450 RPM), Max. Speed (3450 RPM), Step Size (10-250 RPM), Prime Time (0-5 min.), and Prime Speed (450-3450 RPM).

Speed Circuits: Assign the speeds to the circuits you wish to use. Tap Speed Circuits and tap Add Circuits to assign a new AUX circuit. To change the pump speed of a listed circuits, tap the AUX name to change the assigned RPM setting. Tap Return to save the setting and return to the previous screen. **Affiliated Circuit Settings:** Circuit: The assign circuit to control the pump speed. **Speed (RPM):** Assign pump speed from 450 to 3450 for the selected circuit. **Pump Status:** Shows the current power usage in Watts, speed, in revolutions per minute (RPM) while the pump is operating. Tap Return to return to the previous screen. Also see: Tap Status on the Home screen to display the current pump status and error condition.

IntelliFlo VSF Settings: Pump Type, Name, Address (1-16), Min. Speed (450 RPM), Max. Speed (3450 RPM), Min. Flow (20 GPM), Max. Flow (140 GPM), Step Size (10-250 RPM), and Step Size (1-10 GPM). **Speed Circuits:** Assign the speeds to the circuits you wish to use. Tap Speed Circuits and tap Add Circuits to assign a new AUX circuit. To change the pump speed, tap the AUX name to change the assigned RPM setting. Tap Return to save the setting and return to the previous screen. **Affiliated Circuit Settings:** Circuit: The assign circuit to control the pump speed.

Flow (GPM): Assign pump flow rate from 20-140 for the selected circuit. **Speed (RPM):** Assign pump speed from 450 to 3450 for the selected circuit. **Pump Status:** Shows the current power usage in Watts, flow rate in gallons per minute (GPM) or revolutions per minute (RPM) while the pump is operating. Tap Return to return to the previous screen.

IntelliFlo VF Settings: Pump Type, Pump Name, Pump Address (1-16), Min. Flow (15 GPM), Max. Flow (134 GPM), and Step Size (1-10 GPM).

Speed Circuits: Assign the speeds to the circuits you wish to use. Tap Speed Circuits and tap Add Circuits to assign a new AUX circuit. To change the pump speed of a listed circuits, tap the AUX name to change the assigned RPM setting. Tap Return to save the setting and return to the previous screen.

Affiliated Circuit Settings: Circuit: The assign circuit to control the pump speed. **Flow (GPM):** Assign pump flow rate from 0 to 134 for the selected circuit.

Pump Status: Shows the current power usage in Watts, and flow rate in gallons per minute (GPM) while the pump is operating. Tap Return to save the setting and return to the previous screen.

Chemistry [IntelliChlor® SCG and IntelliChem® Controller]: From the Chemistry screen you can configure one IntelliChlor SCGs and up to eight IntelliChem Controllers.

Also see: Home screen(*): Tap Chemistry to access IntelliChlor and IntelliChem operation summary screens. **Add IntelliChlor and/or IntelliChem:** Tap Chemistry on the Home screen. Tap Add Chemistry. Select one IntelliChlor SCG and up to eight IntelliChem Controllers on the Select Chemistry Device. **IntelliChlor SCG Settings:** For dual body systems, each device is assigned to pool/spa. For single body systems, select either Body 1 (pool), Body 2 (Spa). **Chlorination Output Levels:** Set the Pool and Spa chlorine output levels. The system can only generate chlorine while the filter pump is operating. Set the percentage to produce chlorine. The Spa output 1/20 of the pool output when the Spa mode is switched on. Note: If using the Filter Pump Relay select Filter Pump Relay and Tap Next. Choose either the Pool or Spa Relay and can set the chlorination output levels and turn Super Chlorination On/Off. Tap the Back arrow to return to the previous screen and Tap Next. **Super Chlorination (ON):** Tap the Start Super Chlorination button to temporarily override the current chlorination output levels with super chlorination (100% output for the select time (typical 24 hours)). **IntelliChem Settings:** **Address (1-4):** Select an address from 1-4 for the IntelliChem Controller. **Body Assignment:** For dual body systems, the device is assigned to pool/spa. For single body systems, select either Body 1 (pool), Body 2 (Spa).

Heater

Add Heater: Tap Add Heater to add a new heater type. **Select New Heater:** Select the heater type from the list of heat sources. Heater types are: Off (no heater installed), Gas Heater, Solar, Heat Pump, UltraTemp and Hybrid. **Gas Heater Settings: Heater Type:** Displays the Heater Type selected. **Heater Name:** Tap the heater name button to change the heater name. Enter the new name and tap Check to save the name and return to the previous screen. **Affiliated Body:** Assign the heater to a body of water: Pool, Spa or Pool/Spa (shared equipment dual body of water).

Heater Name: Tap the heater name to change the current heater name. Tap Cool Down Delay (min): The gas heater Cool Down Delay (min) can be set from 0 to 10 minutes (5 min. default).

Note: Pentair gas heaters do not require a cool down period.

Heater Pump Settings: Heater Type: Displays the Heater Type selected. **Heater Name:** Tap the heater name button to change the heater name. Enter the new name and tap Check to save the name and return to the previous screen. **Affiliated Body:** Assign the heater to a body of water: Pool, Spa or Pool/Spa (shared equipment dual body of water).

Start Temperature: Tap the +/- buttons to decrease or increase the Heat Pump start temperature.

Pool/Spa System without a Heat Source: If the pool/spa system does not have a heat source installed, the Home screen and Pool and Spa screens will not display the Heating Set Point buttons. The Pool/Spa badge (Yellow, Blue, Green) will display the current water temperature. Solar and Heat Pump Nocturnal Heater Cool Down Delay

For Solar and Heat Pumps. Use the Cooling Set Point temperature control buttons displayed on the Pool and/or Spa screen to adjust the nighttime temperature of the pool/spa water.

Solar Heater Settings: Heater Type: Displays the Heater Type selected.

Heater Address (1-16): Assign the Heat Pump or UltraTemp heat pump address. **Start Temperature (Heat Pump only):** Set the start temperature from 1-12. Note: Valves A & B and Solar

Heating: For Single Body systems, Valve A is used for SOLAR if you choose SOLAR heating. For Dual Body systems, Valve B is used for SOLAR if you choose SOLAR HEATER. Cooling Enabled (UltraTemp only). **On/Off:** On: Set a Cool-Down Cycle for the Heater to activate the pump during a heater cool-down. Note: Select Pump On during heater cool-down, under the Delays option. Note: Pentair heaters do not require this feature.

Heater Name: Tap the heater name button to change the heater name. Enter the new name and tap Check to save the name and return to the previous screen.

Affiliated Body: Assign the heater to a body of water: Pool, Spa or Pool/Spa (shared equipment dual body of water).

Start Temp. Delta (6): The minimum temperature difference to start heating. The temperature range is adjustable from 4°F - 9°F. Factory default is 6.

Stop Temp. Delta (3): The temperature difference at which heating will stop. The temperature range is adjustable from 2°F - 5°F. Factory default is 3.

Solar Nocturnal Cooling ON/OFF: ON: Provides automatic nocturnal (nighttime) cooling during night time hours for pools that overheat in hot climates. When enabled, circulates relatively warmer pool water to the collector panels when the collector temperature and the pool temperature is hotter than the high limit setting. This process cools the pool water over time. Circulation will stop when the collector temperature is 3 degrees (default) less than the pool temperature or the pool temperature is cooler than the high limit setting. OFF: SOLAR nocturnal (nighttime) cooling disabled.

Heat Pump and UltraTemp Settings: Heater Type: Displays the Heater Type selected. **Heater Name:** Tap the heater name button to change the heater name. Enter the new name and tap Check to save the name and return to the previous screen. **Affiliated Body:** Assign the heater to a body of water: Pool, Spa or Pool/Spa (shared equipment dual body of water). **Heater Address:** Assign an address from 1-16. **Differential Temp (default 6 degrees):** The minimum temperature difference to start heating (adjustable range from 4° - 9°).

Hybrid: Heater Type: Hybrid. **Heater Name:** Hybrid: Tap the heater name button to change the heater name. Enter the new name and tap Check to save the name and return to the previous screen.

Affiliated Body: Assign the heater to a body of water: Pool, Spa or Pool/Spa (shared equipment dual body of water). **Heater Address:** Assign an address from 1-16. **Heat Mode:** Heat Pump Only (Uses only the Heat Pump side during calls for heating. **Gas Heat Only:** Uses only the Gas Heater side during calls for heating.

Heater (Continued)

Hybrid Mode: Heat Pump Only: Uses only the Heat Pump side during calls for heating. **Gas Heat Only:** Use only the Gas Heater side during calls for heating. **Hybrid Mode:** The Hybrid Heat Pump automatically determines when heating via heat pump or gas heater is appropriate, and automatically switches between the two. **Eco-Time:** Only active in Hybrid Mode. Use this feature if the unit is unable to heat incoming water to the active set point within a specific period of time, then the gas heater will turn on to provide supplemental heat. Eco-Time is the time the heat pump will attempt to heat to the active set point before the gas heater activates to provide supplemental heat. Both the Pool Set Point and Spa Set Point have an individual Eco-Time setting. **Boost Temperature (From 5 to 10 degrees):** Only active in Hybrid Mode. Use this feature if the unit is unable to heat incoming low temperature water to the active set point. When the difference between the actual incoming water temperature and the active set point exceeds a set amount, the gas heater will turn on to provide supplemental heat. The Boost Temp. setting is the difference between incoming water temperature and the active set point which will activate the gas heater. Both the Pool Set Point and Spa Set Point have an individual Boost Temperature setting.

Dual Mode: Heat Pump and Gas Heater will run in tandem during calls for heating. Provides fastest possible heat ups.

Schedules

To access the Schedule screen, from Home screen tap Schedule, select Weekly, or One Time Only. You can create up to 20 schedules per device. From the Schedule screen you can add, delete, edit, enable and disable schedules. Tap the Add button (+) to add a schedule. To delete a program tap the Trash Can icon to delete the program from the list. Use the Up/Down arrow to scroll through the program list. Note: If a schedule is on the same minute that the previous one ends, the schedule will overlap, in this case the newest schedule's start time takes priority by ending the previous schedule early. To access the Schedule screen, tap the Schedule icon on the Home screen. From the Schedule screen you can program On and Off times for circuits (auxiliary and Feature circuit) controlled by the IntelliCenter™ Control System. Circuits can be scheduled set to turn On or Off all days, weekends, weekdays, or any specific day of the week. Each 24 hour period, equipment (lights, heater, spa jets, filter pump) can be programmed for multiple On/Off times. You can also schedule which heat mode to use and also change the heat set point if necessary. The Schedule screen lists each scheduled circuit(s) start and stop time, and days to run.


One Time Only: This schedule will switch equipment on for the specified amount of time. You can set the desired "One Time" schedule to run the pump for the specified time only.

Vacation Mode: If you are planning a vacation and wish to use a different schedules while on vacation, you can setup a start and stop date to run a daily pool/spa filter schedule. When you return from vacation the system will continue with the previous schedules.

Vacation Mode: ON: Turn on Vacation mode (manually enabled no end date/time). **OFF:** Turn OFF Vacation mode.

Note: Previous vacation schedules will remain in memory and can be enabled again for future use. **Duration: ON:** Set Start & Stop date for duration of schedule(s). **OFF:** Duration for vacation schedules is disabled (no Start and Stop date has been established). **Schedules:** Set up a Weekly or One Time Only schedule for the duration of the vacation time. See Schedules. **Vacation Start Date:** Set the vacation start month, day and year. The number days before the vacation start date are shown on the screen. **Vacation Stop Date:** Set the vacation end month, day and year. The number days before the vacation start date are shown on the screen. Note: To indicate the system is in Vacation, the Schedule icon displayed on the Home screen is temporarily replaced with the **Vacation text**. Tap Vacation to see the current vacation schedules.

Schedules		
 Add Program		
Spa	8:00p-11:00p Wed June 14	
Pool	8:00p-11:00p Everyday	
Pool Lights	8:00p-11:00p Weekdays: M Tu W Th F	

Select Program Type	
Weekly Program runs each week on the days you specify	
One Time Only Program will run once on a day you specify	
Vacation	

Schedules (Continued)

Weekly Program: This feature will automatically schedule a circuit or a group of circuits to switch on and off at a specific start and stop time and day. Circuits can be scheduled to turn On or Off all days, weekends, weekdays, or any specific day of the week. Each 24 hour period, equipment (lights, heater, spa jets, filter pump) can be programmed for multiple On/Off times. You can also schedule which heat mode to use and also change the heat set point if necessary. The Schedule screen lists each scheduled circuit(s) start and stop time, and days to run.

Add a Program: From Home screen tap Schedule > Add Schedule > Weekly to add a new schedule.

Note: If the system is in Vacation Schedule mode, the Home screen Schedule icon will change to **Vacation** text.

Delete Program: Tap the Trash Can icon and select the schedules to delete from the list, then tap Check and the Yes button to delete.

Weekly: Tap Weekly to display the available AUX (auxiliary) circuit, Feature circuits and Groups (circuits and Feature circuits) as defined in the Circuits screen.

Everyday: Tap Everyday and select the days of the week (Mon-Sun), Weekdays, Weekends, Every Day, or No Days to run the schedule. Tap Check to save and return to the previous screen.

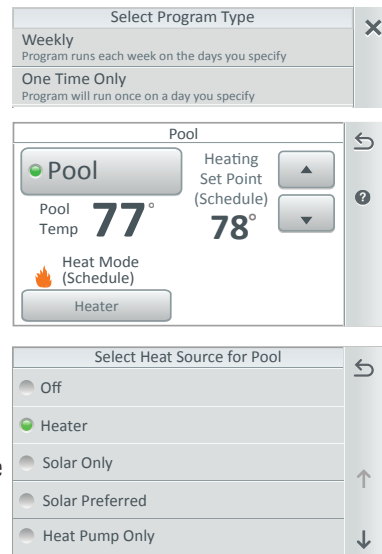
Circuits: Tap Circuit and select a circuit from the assigned circuits list. Note: Heat Source and Set Temperature options only display for Pool and Spa circuits. Use these options to schedule your pool/spa heater to heat the water at a specified time.

Duration: Start time duration: The equivalent time left after the start time is established (e.g. 1:00 AM to 9:00 AM. The system clock calculates the duration between the start and stop time which is 8 hours. Note: To offset Sunrise and Sunset start time. **Stop Time (Manual):** Set the stop time (am/pm) for the Weekly schedule. **Duration: Stop time duration:** The equivalent time left after the start time is established (e.g. 1:00 AM to 9:00 AM. The system clock calculates the duration between the start and stop time which is 8 hours. Note: To offset Sunrise and Sunset stop time. **Heat Source:** Tap Heat Source and select: Off, Heater, Solar Only, or Solar Preferred. Heat Pump Only, Heat Pump Preferred or Hybrid. To create a heat source go to Settings > Advanced System Configuration > Installation Setup > Heaters. **Set Temperature:** Tap the plus or minus button to set the Heat Source set point temperature from 40° F to 104° F.

Don't Change Feature - Heat Source/Mode (Schedule): Don't Change (use for Schedules only), OFF, Heater, Solar Only, Solar Preferred, Heat Pump Only, Heat Pump Preferred or Hybrid. If **Don't Change** is select as the heat source in the Schedules feature (Heat Source), When a schedule is active, you have the option to select a Heat Mode source from the **Pool or Spa screen**, which will be used every time the schedule is active.

Manual OP Priority: If this feature is set to ON, a circuit can be manually switched OFF and switched ON within a scheduled program. The circuit will continue to run for a maximum of 12 hours or whatever that circuit Egg Timer is set to, after which the scheduled program will resume if the Schedule has not ended before the Egg Timer expired. Default is OFF. See Settings > General for more information.

One Time Only: This feature will automatically schedule a circuit or a group of circuits to switch on and off at a specific start and stop time and day, for one time only. The circuit or group of circuits must be turned off manually or wait for the 12 hour automatic shut-off. However, the 12 hour factory shut off time can be changed by setting a new run time in the Egg Timer. See Egg Timer feature in the Circuits settings (Settings > Advanced System Configuration > Installation Setup > Circuits.. For example, you could set up the program to pre-heat your spa ready for your arrival. After the scheduled One time Only program is completed, it is automatically erased. If the heater and pump already are on a schedule. If the equipment is off, the One Time Only timer will switch it on for the scheduled time that has been set.



Service Mode

Service Mode: Service and Timer mode is used for pool/spa maintenance or service purposes to manually control and test system equipment. During Service mode, the Home screen, Indoor Control Panel and Wireless remote displays will show SERVICE MODE. All system auxiliary circuits will be disabled once Service or Timer is selected. When AUTO is selected, normal operation will resume and the system will not be in service mode.

Auto: When Auto is selected it indicates that the system is operating normally and not in Service or Timer mode.

Service: When Service is selected, all system auxiliary circuits will turn OFF. To enable auxiliary circuits select Manual Circuit Control and choose the system auxiliary circuits to turn on/off.

Manual Circuit Control: Choose the auxiliary circuits to allow manual control. Tap the circuit name to turn the circuit on/off. Note: For shared equipment dual body of water, only one valve can be activated at a time.

Timer: Use the Timer mode to leave the system in service mode up to 24 hours and automatically return to Auto mode (normal system operation) after the maximum hours set has elapsed. Set the count-down timer from 1 to 24 hours for selected circuits to remain in service mode.

Alerts & Warnings Shown in Status: Displays a Badge icon on the Status Home screen icon for selected items show on this screen.

Configure... Tap Configure... to display the selectable items for the displayed options. From the Select Shown in Status screen, tap on items or Select ALL items to shown on the Home screen Status icon. If Configure is displayed on the option button, it indicates Alerts & Warnings Status Badge will not be displayed.

Circuits: Select two status conditions. A **Yellow Badge** indicates a delay is in progress. **Delays:** (Heat Cool-Down, Valve Rotation Delay, Pump Priming. A **Blue Badge** indicates that the Pool/Spa pump has been manually turned on. Using Override Delays. Go to Delays and tap Override Delays. Override Delays will cancel all active delays. If a Schedule is running, a Green Badge will display. If the pool/spa pump is manually enabled (ON/OFF), a Blue badge will display.

Yellow changes to Green: A schedule has been turned on. **Yellow changes to Blue:** Pool/Spa pump has been manually turned ON. **Blue:** Will stay on until pool/spa pump is manually turned off. **Note: Blue Badge will stay on for the Egg Timer duration (12 hrs. default).If the Egg Timer is set to Don't Stop to circuit will run continuously until manually is switched off.**

Pumps: Select up to eight common pump and filter warnings and alarms.

Chemistry IntelliChlor®: Select up to five common IntelliChlor SCG warnings and alarms. **Chemistry IntelliChem®:** Select up to 17 common IntelliChem Controller related warnings, errors and alarms.

System [Advanced System Configuration]

Update the IntelliCenter Control System Firmware: From the Home screen Settings > Advanced System Configuration > System: Displays the system firmware version: Version 1.010. Tap System Information to display MAC Address, Serial Number, Manufacturer Date, Firmware Version, IP Address and Release Notes. Release Note: Information about the current system firmware release.

Check for Update: Tap this button to check for the latest IntelliCenter™ Control System firmware version. Follow the screen prompts.

Update from USB: Tap this button to display the Select Firmware File for Update screen. Using the Up/Down arrows, locate the Update file (.pfw). Tap the file name to begin the update. **Update from Panel:** Tap this button to update the current firmware to a newer or earlier version from a USB device installed in the Outdoor Control Panel, Indoor Control Panel, Wireless Remote. Follow the screen prompts.



Security (Passcode)

Note: Only an the Administrator can access the Security screen.

Enable Security: Tap the Enable Security bar to access the Super Administrator's Security Settings. The Enable Security setting is ON to allow you to enter the Super Administrator's Passcode. From this screen the Administrator can enable or disable Guest Account to assign a passcode, and turn off and on the main system security. Note: If the incorrect Passcode is entered multiple times, the Access Denied screen is displayed. This screen will time out for 60 seconds. After 60 seconds has elapsed, tap OK to enter the correct Passcode.

Security: This screen shows the Administrator has been assigned a passcode and is logged and has access to all of the system (All Sections). Also shown is a Guest Account who has been assigned a passcode and how many sections have been allow access to (8/24 Sections). 0/24 Sections indicates no access to system sections.

Administrator Log out: Tap Administrator to enable or disable the system security. To log out the Administrator, tap Yes.

User List: Tap a name to display the User Security Settings screen: Change the user name, passcode, access to sections and timeout setting.

Add New User: Tap Add New User to enter the new user's name and select up to four (4) sections that the user has access to. Up to 10 users can be assigned access to the Sections. Tap Check to save the name and return to the previous screen. Note: Tap Guest to access the Guest Security Settings screen to allow the Guest to access 0 to 24 system settings. A Guest does not require a Passcode.

Passcode: Tap Unassigned and enter the 4 digit system Super Administrator's Passcode. Tap Check to save the passcode. Tap X to exit without saving passcode return to the previous screen.

Timeout (min): Tap plus or minus to set the screen elapse time (1-10 minutes) before screen message is displayed for the passcode. A padlock icon is displayed on the Home screen indicates that there is an Administrator's passcode assigned.

Deselect All: Tap Deselect to deselect all of the system functions selections in the list.

Select All: Tap select All to select all of the system functions listed, or tap individual selections. Tap Check to save selections. Tap X to exit without saving changes.

Pentair User Portal (www.intellicenter.com) (Settings)

Web and Mobile Interface: Tap to access the Web and Mobile Interface scree. The default setting for Web Interface is OFF. This enables the Web based and mobile interface which allows local network and Internet communications with the IntelliCenter™ Control System. To disable Web based and mobile interface, set to OFF. Note: For the IntelliCenter Control System to connect to the Web requires connection of the Wireless Bridge Transceiver Antenna to the Outdoor main circuit board. For installation instructions, see the IntelliCenter Control System Installation and User's Guide.

Add New Account: Enter the owner's information, Email address, Property Name, Password. The system will attempt to create to the owner's account Email address to www.intellicenter.com.

Login to Existing Account (www.intellicenter.com): Enter Email address and password. The system will attempt to connect to the owner's account via the Internet connection.

Update Owner Information: Edit owner information: Property Name, Name of owner, Address, City, State, Zip Code, County, Time Zone, Phone number, E-Mail. Location information is populated when entered in General > Location > Date & Time.

View Connection Information: View server connection information: Last messages received, total number of server connects.

Internet Connection Test

Internet Connection Test: Test the Internet connection after the home wireless connection has been setup. If connected to the Internet, the average response time is displayed.

Delays [Advanced System Configuration]

Delay Settings: Valve Delay ON or OFF: **ON:** Filter pump is off (30 seconds) during the delay for pool/spa valve rotation. **OFF:** No valve pool/spa rotation delay

Heater Cool Down Delay ON or OFF (Cancel Delay): Note: This feature is adjustable from 0 to 10 mins. per heater (largest time minutes per body of water).

ON: Activate the pump during a heater cool down. Pump on during heater cool-down: Select this option if you have a heater or other equipment that requires that the filter pump stay on for five (5) minutes after the equipment goes off. **OFF:** Shuts OFF the filter pump immediately. Some heaters require a cool-down cycle before being turned off. This can be accomplished with a setup procedure in the IntelliCenter Control System which runs the filter pump an additional five (5) minutes to dissipate residual heat built up inside the heater combustion chamber. The delay feature is mainly for use by service technicians when they want to shut the filter pump off immediately, and know the heater has not been running. **IMPORTANT:** Heaters manufactured by Pentair Water Pool and Spa do not require this cool-down period and do not need the delay to be set up.

Freeze Cycle Time (0 to 60 minutes): Freeze Cycle Time: Set the freeze protection pump time from 5 to 60 minutes. Default time is 5 minutes. This feature rotates the valves from the pool to the spa at the duration of the pump timer.

Override Delays: Tap this button to override (cancel) any system delays currently in progress.

Delay Badge (Yellow): A Yellow badge displayed on the Home screen Pool/Spa icon indicates a Valve rotation (delay) is in progress.

Setup Wizard [Advanced System Configuration] - Outdoor Control Panel Only

Initial System Power Up: After all required pool/spa equipment has been connected to the IntelliCenter Control System, apply power to the system at the main panel circuit breaker. Upon the initial system power up, the outdoor LCD control panel will display the PENTAIR END USER LICENSE AGREEMENT. Please read this agreement. To continue, tap the Down arrow on the right side of the screen to scroll down to the end of the agreement and tap **I Accept** to accept the agreement. The Home screen is then displayed. *Note: Initial system Power up: The Pentair End User License Agreement is displayed only one time after the initial system power up.*

Wizard Setup: To start the Wizard system setup, from the Home screen, tap **Settings > Advanced System Configuration > Wizard**.

IntelliCenter Control System Setup: The first Setup Wizard configuration screen, Displays the current system firmware version.

IntelliCenter Control System Setup Wizard: The first Setup Wizard configuration screen, Displays the current system firmware version. **Help/Menu:** Tap to display the Help text. Tap hold and release to display the Wizard MAIN MENU options. **Exit Wizard:** Tap this button to exit the Setup Wizard and return to the Home screen. **Next:** Tap Next to continue with the Setup Wizard and display the Detected Hardware screen.

Import System Configuration: Yes: Use this option to Import a system configuration file (.CFG) from a USB device plugged into the USB Port on the front of the IntelliCenter Control System Outdoor control panel. Note: This option will overwrite the current system configuration. No: Tap No then Next to continue with the Setup Wizard.

Import for USB: Insert a USB device into the USB Port on the Outdoor or Indoor control panel. Tap Import from USB and navigate to the system configuration file (.CFG). Follow the on screen instructions to import the system configuration files plugged into the USB Port on the Outdoor or Indoor control panel. Local or copy from Remote: These options will overwrite the system

Detected Hardware: Displays the installed IntelliCenter Control System Personality main circuit board and Expansion Cards (if applicable).

Next: Tap Next to continue to the Zip Code/Location settings screen. **Back/Home:** Tap Back to go to the previous screen. **Exit Wizard:** Tap to exit the Setup Wizard and display the Exit Wizard screen (No, Yes, Discard options). **Update date & Time:** Tap Yes and Next to update the system date and time. **Clock Mode:** Select either 12 hour or 24 hour mode. **Time Set:** Tap the Time Set time bar and set the current time for your location. Tap Check to save and return to the previous page. **Date Set:** Tap the Date Set time bar and set the current date. Tap Check to save and return to the previous page.

Offset (min/month): Select ON to offset the current time (minutes) and month. **Daylight Saving Time:** Select ON to automatically set the yearly daylight saving time for your location. Select NO to manually change the daylight savings time for your location. Converting a 12 hr. time to 24 hr. (military time) is from 1:00 PM to 11:59 PM, then add 12 hours, and from 12:00 AM (midnight) to 12:59 AM subtract 12 hours. **What is your Zip Code / Location:** After the IntelliCenter Control System has verified the login information successfully, the Location screen is displayed. If needed, tap Zip Code, Latitude/Longitude or Time Zone and enter the updated information. *Note: If the PC time and date do not match the time and date displayed on the Home screen, you need to reset the PC time and date to the time and date set*

Wizard Navigation: Help: Tap this button to display brief informative information for the current screen. Menu: Tap hold and release to display the Wizard Setup Main Menu items. From this screen you can select which item to configure during the Wizard setup.

Help Screen/Main Menu Button: From any of the Wizard Setup screens, tap Help to display the help text. Tap the Main Menu button to display the Wizard Main Menu items.

Main Menu: Tap the Main Menu button on the Help text screen to display the Main Menu items. Also, tap and hold and release the Help/Main Menu button on any of the Wizard Setup screens to display the Main Menu items. **Start Page:** Return to the first Wizard "Welcome" screen. **Exit Wizard:** Display the Exit Wizard screen options. **Back:** Return to the previous screen. **Summary Page:** Go to the Summary screen. **For more Set Wizard information, see the IntelliCenter Control System User's Guide (P/N 522990).**

IntelliCenter® Control System Menu

Home Screen: Pool, Spa, Features (Individual/Groups), Lights ((Individual/Groups), Schedule (Pump schedule), Usage, Chemistry (IntelliChem/IntelliChlor SCG), Status.

Settings: Service Mode, Vacation Mode, Support:

General: (Location, Date & Time, Units, Features and Lights List Order, General List Order, Backlight (Deep Sleep: Wireless Control Panel only), Temperature Sensor Calibration, Day / Night Themes, Manual Operation Priority, Manual Heat, Chemistry Readings Badge, Badge Colors

Alerts and Notifications: Choose which system status, alerts and warnings badges to display on the Home screen Status icon.

Security: (Passcode Protect)

Pentair User Portal: (www.intellicenter.com)

Groups: (Configure groups of circuits and feature circuits)

System Reboot: Reboot the panel.

Advanced System Configuration: Installation Setup: Body Configuration, Circuits, Pumps, Heaters, Valves, Chemistry, Pool/Spa Cover.

Remotes Setup: (iS4, QuickTouch II, iS10, SpaCommand remotes)

Network and WiFi Setup (Not required for Wireless 900 MHz High Power Wireless Link Kit (P/N 523434). Please refer to the provided installation instructions (P/N 523445) when installing the 900 MHz Wireless antenna.

Configure Ethernet, Configure Wireless Network, Internet Connection Test), Reboot WiFi Device.

IntelliCenter Wireless Remote Setup: Configure the wireless remote.

Delays: Valve Delay, Heater Cool Down, Freeze Cycle Time, Override Delays.

System: System Information, Detected Hardware, System Diagnostic Information, Firmware Update (Update from Panel, Update from USB, Update from Ethernet), Factory Diagnostics.

Import/Export: Import System Configuration, Export System Configuration.

Restore Factory Defaults: Restore system to factory configuration.

Setup Wizard: Step-by-step system configuration (takes about 15 minutes).

Internet Setup for the IntelliCenter® Control System

Internet Setup:

1. Once the Internet connection test passes, press and hold the Return arrow to return to the Home screen. From the Home screen, tap **Settings > Pentair User Portal**.
2. Tap **Enable Web & Mobile Interface**. Change the toggle to ON and tap the Return arrow.
3. Tap **Add New Account**.
4. Tap Property Name and enter the name of the property, and tap the checkmark.
5. Tap **Email** and enter the users email address, and tap the checkmark.
6. Press the checkmark to go to the next screen.
7. The users Email address should be shown on the first button. If it is not shown, tap the button and add it as described in the steps above.
8. Tap Enter Password and enter a Password, then tap the checkmark. Note: The password should have a least one uppercase letter.
9. Tap the Re-Enter Password button and retype the password, and tap the Checkmark.
10. Tap the Checkmark to complete the process. Once the account setup is complete, return to the home screen and wait for the Pentair logo to appear. After the Pentair logo appears this indicates you are connected to **www.intellicenter.com** and should be able to remotely connect to your IntelliCenter Control System using your User Name and Password used previously.

Notes

Notes

Notes

Notes

Notes

CUSTOMER SERVICE / TECHNICAL SUPPORT

Customer Service

8 AM to 8 PM

Phone: (800) 831-7133

Fax: (800) 284-4151

Website: www.pentair.com

Technical Support

Sanford, North Carolina (8 AM to 8 PM ET)

Phone: (919) 566-8000

Fax: (919) 566-8920

Moorpark, California (8 AM to 5 PM PT)

Phone: (805) 553-5000

Fax: (805) 553-5515



1620 HAWKINS AVE., SANFORD, NC 27330 • (919) 566-8000
10951 WEST LOS ANGELES AVE., MOORPARK, CA 93021 • (805) 553-5000

All indicated Pentair trademarks and logos are property of Pentair. Third party registered and unregistered trademarks and logos are the property of their respective owners.

© 2023 Pentair. All rights reserved. WWW.PENTAIR.COM



P/N 522988 REV. D 11/1/23



INTELLICENTER CONTROL SYSTEM WEB APPLICATION



USER'S GUIDE

CUSTOMER SERVICE / TECHNICAL SUPPORT

Customer Service (8 A.M. to 8 P.M.)

Phone: (800) 831-7133

Fax: (800) 284-4151

Web site

Visit www.pentairpool.com

Technical Support

Sanford, North Carolina (8 A.M. to 8 P.M. ET)

Phone: (919) 566-8000

Fax: (919) 566-8920

Moorpark, California (8 A.M. to 5 P.M. PT)

Phone: (805) 553-5000

Fax: (805) 553-5515

CONTENTS

Web App Overview/Features	1
Home Screen (Top Bar)	3
Add Users and Login to the Web App	4
Pool(s) Pool/Spa Controls	7
Features	8
Lights	9
Light Groups	10
Chemistry	11
Pumps	14
History	17
Settings	18
Schedules	19
Vacation	20
General Settings	20/21
Circuits (System Configuration)	22
Circuits Groups	23
Bodies (System Configuration)	24
Other Equipment (System Configuration)	25
Remotes (System Configuration)	27

IntelliCenter® Control System

Web App Overview

Welcome to the Pentair IntelliCenter Control System Web application.

This User's Guide contains all of the information you need to remotely access daily pool and spa operations using the Web Application.

Features

- 4" x 2.5" capacitive touch sensitive color touch screen with finger tap navigation, 1280 x 720 resolution
- Day Time and Night Time color screen modes
- Multifunction Schedules/Programs
- Adjustable schedule timer for easy system scheduling
- 100 Schedules/Programs
- Adjustable schedule timer for easy system scheduling
- Wireless Control Panel "Deep Sleep" extend battery life feature
- 64 Feature Circuits: Allow additional speeds on a variable speed pump or an actuator to be assigned without using an existing auxiliary circuit.
- 16 Groups: Assign groups of lighting, heaters, pumps circuits that can be controlled by a single button.
- Supports up to 16 IntelliFlo® VF and VS Pumps
- Supports up to four SpaCommand® and iS10 Spa Side Remotes, and 2 iS4 and QuickTouch® II Wireless Spa Side Remotes
- Supports IntelliBrite® LED Color lights
- Valves: Intake/Return plus A and B valve circuits. Expandable up to 13 valves.
- 20 custom circuit naming - 92 Pre-installed names
- Indoor Control Panel, Wireless Hand-Held Remote, Outdoor Control Panel
- IntelliChlor® and iChlor® Salt Chlorine Generator compatibility
- 40 Auxiliary circuits (includes three Expansion Panels)
- 32 Feature circuits
- Spa, Manual Heat Function
- Supports two separate bodies of water using model i10D Personality Card
- System Reboot from touch screen control panels
- Spa Side Control Enable/Disable
- Solar Heating Option/Support
- 16 Heat Pump Support: RS485 Support, Heat Pump Cooling Support.
- Safety and Functional Delay(s) and Cancel Systems Delays
- Real Time Clock
- Assignable Circuit Names and Custom Circuit Names
- Special Circuit Functions
- Two Speed Pump Support
- English/Metric Support
- Sensor Calibration
- Passcode Protection
- USB port for use with a standard flash drive. Save the complete system's configuration, upgrade the system's firmware.

Overview

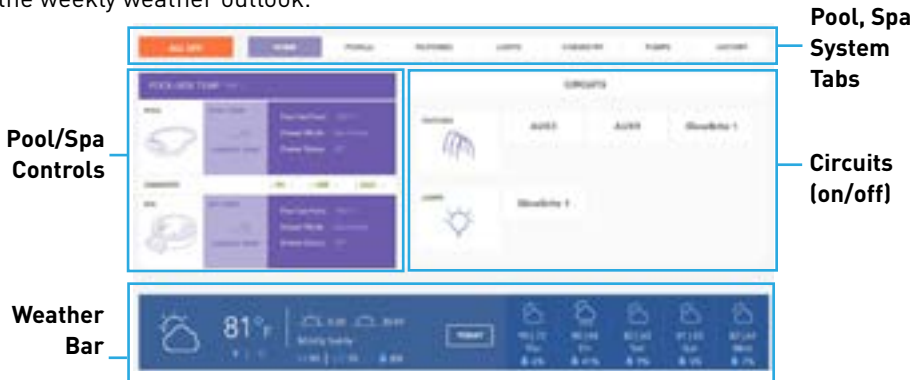
The IntelliCenter® Control System Web Application Home screen gives you complete control of your pool and spa from anywhere via the Internet.

Home Screen

Displays the Home screen. Click on the tabs to access the Web App features: The Pool, Features, Lights, Chemistry, Pumps and History screens to control adjust pool/spa water temperature, turn on/off pump, Lights, circuits and sanitization.

Weather Bar: Display the current ambient temperature.

Today/Forecast: Click Today/Forecast to toggle between the current weather and the weekly weather outlook.



POOL-SIDE TEMP (Temp 77°F): Displays the current ambient temperature.

ALL OFF / ALL ON: Use this button to switch all light circuits on or off.

HOME: Displays the Home screen. Adjust heater temperature setpoint. Manually turn pool/spa light circuits and Feature circuits on/off. Click on the Home screen tabs to access Pool and Spa settings, Features, Lights, Chemistry, and Pumps settings and History screens. Control the pool and spa daily operations.

POOL(s) (see page 3): Displays the Pool/Spa settings. Turn pool filter pump on/off. Adjust heater temperature setpoint.

FEATURES (see page 8): Displays the Features circuits (lights, cleaners ect.). Turn on/off assigned feature circuits.

LIGHTS (see page 9): Displays the light circuits. Turn individual and all light circuits on/off. Select light shows and fixed colors.

CHEMISTRY (see page 11): Display the installed IntelliChlor SCG and/or IntelliChem devices. Control IntelliChlor® SCG and IntelliChem® Controller chemistry sensitizers. Adjust water, pH and ORP levels, and pool and spa chlorine levels.

PUMPS (see page 14): Displays the installed pump circuits and settings. Control pump circuits. View IntelliFlo pumps speed (RPM), flow rates (GPM) and power usage (Watts vs Peak usage).

HISTORY (see page 17): Displays the pool and spa equipment usage. View current pool, spa, solar and air temperatures and chemistry pH and ORP feeds.

Home Screen (Top Bar Options)

Notifications Icon

Click the Bell icon on the top of the screen to display the available Notifications options. The Bell icon with Red Number Badge indicates the current number of system status, warnings and alerts. *See Settings > General Settings > Notifications to manage message types (Circuit (0-1), IntelliChem® (0-16), Pumps (0-10), Heaters (11) and IntelliChlor® SCG (0-8), page 18.*



Filter By: Click the Filter By box to see the options:

All: Display all notification categories.

Alerts: Display all current alerts messages.

Warnings: Display all current warnings that may require immediate attention.

Information: Display general system information.

Status Messages: Display current status information. The system water and air sensors are constantly monitored for errors. If a sensor error is detected, the displayed error is listed in the Status Messages.

Local Messages: Display local system messages (email, etc.)

Gear Icon: (Located top right side corner of screen)

Click the Gear icon to display the current USER information and Logout option.

Logged in as: Displays the current name of user@pentair.com

Change Username/Email Address:

Change username and email address.

Change Password: Change current user password.

Manage Pools: Login to another user to manage the pool operations.



3 Line Icon (Located top right side corner of screen)

Click the Line icon to display the system options.

Manage My Pool: Display the current user's Home screen.

Settings (see page 18): Display system settings:

Home, Lights Group, Schedules, Vacation and System Configuration. Use the Settings feature to configure pool/spa equipment settings. For more information, see Settings on page 17.

Manage Users (see page 4-5): Display all system user's email accounts. Add or delete guest and administrator user from this screen.

Manage Installations (see page 6): Display all user system installations.

Enable/Disable Spa-Side Remotes: Enable/Disable current users installed spa-side remotes.

Users Guide: Web App Online User's Guide (PDF).

About: Displays the Web App software version.

Logout: Logout of current user account.



MANAGE MY POOL
 SETTINGS
 MANAGE USERS
 MANAGE SYSTEMS
 ENABLE/DISABLE SPA-SIDE REMOTES
 USERS GUIDE
 ABOUT
 LOGOUT

Add Users and Login to the Web App

Before you can login in to www.intellicenter.com using the Web App, you need to add a new user account name and email address in the IntelliCenter™ Control System Outdoor Control Panel located in the main system Load Center.

Pentair User Portal/Add a New Account:

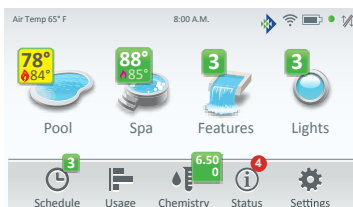
From the Home screen on the Outdoor Control Panel tap **Settings > Pentair User Portal**.

Enable Web & Mobile Interface: Tap this button and select ON.

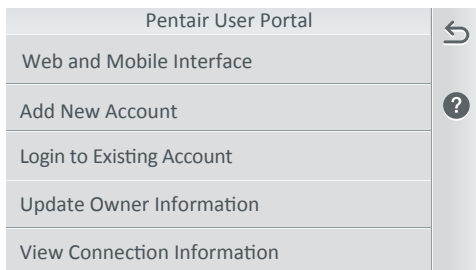
Add New Account: Enter the owner's information, email address, property name, password. The system will attempt to connect to the owner's account email address (via the Internet) to www.intellicenter.com.

Connecting to your pool using the Web App: Go

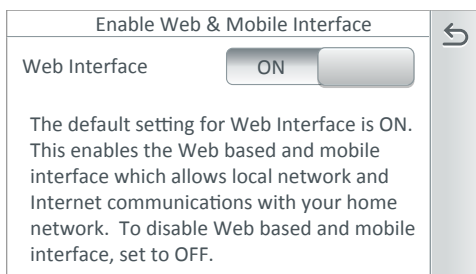
to www.intellicenter.com and sign in using the pool owner's user email address. Select the your pool listed on the Installations screen to display the Home screen.



Pentair User Portal



Web and Mobile Interface: Tap to access the Web and Mobile Interface screen. The default setting for Web Interface is ON. This enables the Web App and Mobile Interface which allows local network and Internet communications to your home network. To disable Web based and mobile interface, set to OFF.



Note: For the IntelliCenter Control System to connect to the Web requires connection of the Wireless Bridge Transceiver Antenna to the Outdoor main circuit board. For installation instructions, see the IntelliCenter Control System Installation and User's Guide.

Login to Existing Account (www.intellicenter.com): Enter email address and password. The system will attempt to connect to the owner's account email address via the Internet connection.

Update Owner Information: Edit owner information: Property Name, Name of Owner, Address, City, State, Zip Code, County, Time Zone, Phone Number, E-Mail. Location information is populated when entered in General > Location, Date & Time.

View Connection Information: View server connection information: Last messages received, total number of server connects.

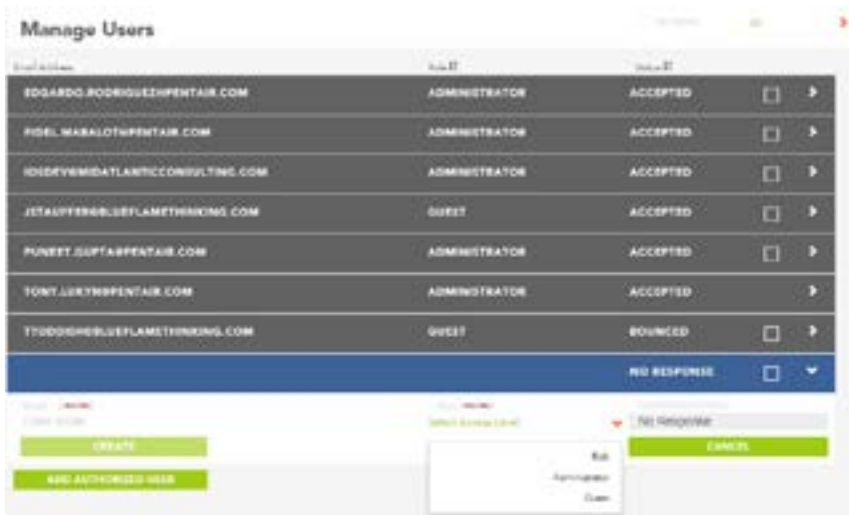
Add Users and Login to the Web App (Continued)

Manage Users

To access the Manage Users screen, click the 3 Line icon located top right side of the screen. Click Manage My Pool to close this screen and return to the main Pool/Spa screen.

The Manage Users screen displays the system user's name and email accounts and level of assigned access (Administrator, guest). Add or delete user accounts from this screen. **Note: Each user name and email address displayed in the Manager Users screen must match with user name and email address in the Pentair User Portal Outdoor Control Panel. For more information see page 4.**

Add Authorized User: Enter the users name and address.
Select Access Level: Select either Administrator or Guest.



Add Users and Login to the Web App (Continued)

Manage Installations

To access the Manage Installations screen, click the 3 Line icon located at the top right side of the screen. Click Manage My Pool to close this screen and return to the main Pool/Spa screen.

The Manage Users screen displays the system user's name and email accounts and level of assigned access (Administrator, guest). Add or delete user accounts from this screen. **Note: Each user name and email address displayed in the Manager Users screen must match with user name and email address in the Pentair User Portal Outdoor Control Panel. For more information see page 5.**

Manage Installations: Display user system installations information.

View User Account Information: Click on the Installation name to view the user account information.

The screenshot displays the 'INSTALLATIONS' page in the Pentair web application. At the top, there is a search bar and a 'VIEW' dropdown menu set to 'ALL'. The main content area is a table of installations:

Name	Address	ID	Actions
AAA		40-110	[Edit] [Delete] [More]
BBB		40-111	[Edit] [Delete] [More]
CHICAGO	1840 Mainfield Dr., Rosemont Park, IL 60012	40-01	[Edit] [Delete] [More]
DEWIER		40-02	[Edit] [Delete] [More]
ED1		40-103	[Edit] [Delete] [More]
ED11		40-104	[Edit] [Delete] [More]
MILWAU		40-00	[Edit] [Delete] [More]

Below the table, there is a green bar with a 'MANAGE INSTALLATIONS' button. Underneath, there is a table with columns for Name, Address, and ID, which appears to be a detailed view or filter for the installations.

Pool(s) Pool/Spa Controls

To view the Pool/Spa controls, Click on the POOL(S) tab from the Home screen. Click the Home tab to return to the Home screen.



Pool(s): To access the Pool and Spa settings, click on the Pool or Spa icon on the Home screen.

Current Temp: Displays the current pool water temperature.

Pool On/Off Slider: Click Off/On to turn pool filter pump off/on.

Spa On/Off Slider: Click Off/On to turn spa filter pump off/on.

Pool /Spa Temp: Displays the current pool or spa water set point temperature. Click **+ or -** to increase or decrease the pool or spa water set point temperature.

Heat Temp: Heat Temp flame icon indicates the heat source is active.

Gas Heater (Pool or Spa): Click to access heat source settings. Turn heat source On or Off.

Features

Features: Click the Features tab on the Home screen to display the Feature circuits screen. Use the ON/OFF button to turn a Feature Circuit (AUX) on or off. There are two types of Feature Circuits, **Generic** or **Spillway** (pool/spa) circuit or **Groups** of combined auxiliary circuits (water features, set spa, jets, set spa heater temperature, switch on spa lighting etc.). Click the Home tab to return to the Home screen.



Assign a Feature Circuit: From Settings (3 line icon, top right corner of screen, see page 2) select System Configuration > Circuits > Feature Circuits.

Feature Circuits: Displays the assigned Feature Circuits. Click Add Feature Circuit to add a Feature Circuit.

Show as Feature (Yes/No): Show assigned Feature Circuits on the Home screen Features screen.

Egg Timer: Display Egg Timer duration.

Circuit Name: Enter a Circuit Name.

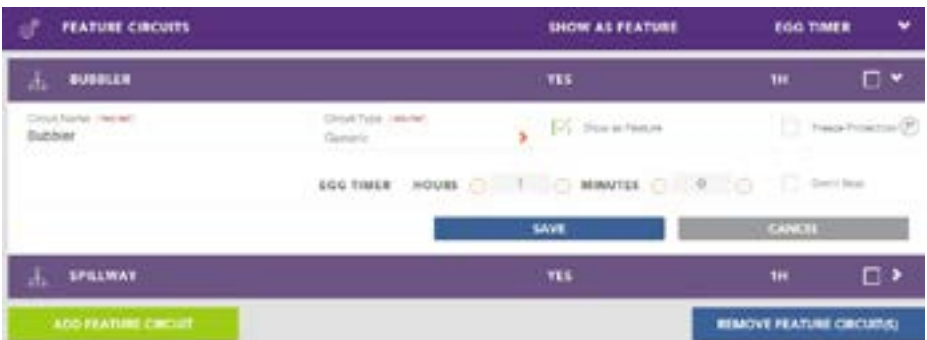
Circuit Type: Choose Generic or Spillway.

Show As Feature: Display the Feature Circuit on Home Screen

Freeze Protection: Enable/Disable circuit freeze protection.

Egg Timer: Hours, Minutes, Don't Stop (0-24 hrs.). Select a manual time-out of 0-12 hours for this circuit (Default is 12 hrs.). The Egg Timer is a specified time delay (hrs/mins) for the circuit, once it is turned on.

Freeze Protection: Assign this circuit freeze protection.



Lights

Lights (Home Screen): Click on the Lights icon or the Lights tab on the Home screen to access light circuits. Use the Home screen Light AUX circuits to manually switch individual light circuits on or off or use the **All On /All Off** button to turn on or off all light circuits including Groups of lights (see page 10). Click the Home tab to return to the Home screen.

Note: To assign light circuits; from Settings (3 line icon, top right corner of screen, see page 2) select System Configuration > Circuits. Light circuits settings include the Egg Timer (Don't Stop), Show as Feature and Freeze Protection.

Note: For Light Groups, see page 10.



Light ON/OFF Button (Color Sync™, MicroBrite® IntelliBrite®, ColorCascade®, GloBrite® Light (Color and White), and MagicStream® lights): Click the ALL ON / ALL OFF to turn all light circuits on or off.

GloBrite White Light Dimmer Level: Click the GloBrite White button to adjust the brightness level. Use the +/- button to increase or decrease the brightness levels of the light. Brightness levels are from 50%, 75% and 100% increments.

Fixed Light Colors: White, Green Blue, Red, Light Green, Aqua, Magenta and Light Red): For IntelliBrite, ColorCascade, GloBrite Light, and MagicStream: To change the color of the light; from the Select Light screen, click one of the colors, then click one of the displayed color buttons to select a SAM color. Click the On/ AUX light name button to turn the selected light on or off. Click on AUX to stop the SAM light Rotation feature. To Capture a color, click the Capture button. **Note:** Color choice is light dependant. Some lights only display white.

Light Shows: IntelliBrite, ColorCascade, GloBrite Light, and MagicStream: Click one of the displayed Light Shows to switch the light show on or off. The options are: *Romance, American, Royalty, Party, Caribbean, and Sunset.*

Lights (Continued)

MagicStream (IntelliBrite® Light) Lighting Features

Capture: You choose one color of light. The color does not change

Rotate Start, Rotate Stop: Start or stop light colors.

Color Sync: Sync all colors with other MagicStream® light.

Color changing mode: the color of the light changes automatically, according to one of the following three programs:

Color Sync: In this mode, multiple laminars will change colors together.

Random: Colors will change at about ten second intervals but in a completely random sequence. In this mode, multiple laminars will NOT change colors together.

Party: Colors will change randomly and slowly at first, then speed up, until the sequence ends with quick flashes and strobes. The sequence then repeats, beginning with the slow changes. In this mode, multiple laminars will NOT change colors together.

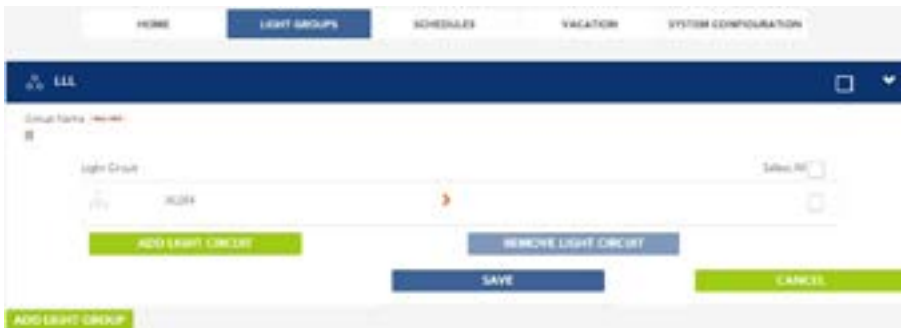
Note: The MagicStream circuit function includes the IntelliBrite LED light shows and fixed color features as well as the standard options: **Rotate Start/Stop, Mode (Color Sync), Capture, Thumper On/Off, Recall and Reset.** From the MagicStream® Light screen you can manually turn on or off the MagicStream Laminars and synchronize with other IntelliBrite LED lights. The MagicStream Laminar water effect provides a clear, turbulence-free stream of water that can be lit with a fiber optic cable. The built-in solenoid **Thumper** can create a random wrinkle in the laminar's water stream to display a brilliant spot of light that moves along the stream's arc.

Light Groups

Assign Light Groups: From Settings (3 line icon, top right corner of screen, see page 2) select Light Groups. Light Groups circuits settings include the Egg Timer (Don't Stop), Show as Feature and Freeze Protection.

Circuit Name: Enter the name of the light group in the name field.

Add Light Group: Click **Add Circuit** and **Select A Circuit** to add a circuit to the light group. Click Add Circuit again to add multiple circuits. Click **Save** to save the Light Group.



Chemistry (Home Screen)

Chemistry (Home Screen): Click the Chemistry tab on the Home screen to display the configured Chemistry Controllers (IntelliChlor® SCG and/or IntelliChem® Controller). Click the Home tab to return to the Home screen.

Configure Chemistry Controllers: From Settings (3 line icon, top right corner of screen, see page 2) select System Configuration > Chemistry Control. See page 13.



IntelliChlor SCG Controller:

Pool Output: Displays the pool chlorination output level from 0 to 100%. Use the +/- button to decrease or increase the pool chlorination output level.

Spa Output: Displays the spa chlorination output level from 0 to 100%. Use the +/- button to decrease or increase the spa chlorination output level.

Salt Level: Displays the current salt level (ppm).

SuperChlorinate: Click the Off/On button to switch on or off superchlorinate. Select the hours from 1 to 96 hours.



IntelliChem Controller (pool/spa) (use +/- controls to adjust the pH level and ORP value.

pH/Tank Level: pH is the concentration of hydrogen ions in the pool water. pH is a quantity measuring the acidity (0 to 7) or alkalinity (7 to 14) of the pool water. The pH low and high alarm set point values are preset in the factory to 6.7 and 7.9. For a pool, the ideal pH is between 7.2 - 7.8 (a pool professional should regularly check the water for metal presence, cyanuric acid levels and TDS (total dissolved solids)). To maintain accurate pH pool water measurements, regular maintenance and calibration of the pH probe is necessary before the summer season.

Continue on next page.

Chemistry (Home Screen)

ORP/Tank Level: Oxidation-Reduction Potential (ORP) is the concentration level of disinfectant (chlorine, bromine, active oxygen) present in the pool water. The ORP level is the oxidant quality in the pool water which is the result of the ratio quantity of disinfectant / quantity of pollution. It is advised to keep this "disinfection potential" measurement between 400 mV and 800 mV. To maintain accurate ORP pool water levels, regular maintenance of the ORP probe is advisable. ORP probe calibration is necessary before the summer season.

Tank Level: Click the tank segment (1-6) to match the amount of muriatic acid currently in the canister. The canister can hold a maximum of 3-1/2 gals. of muriatic acid. The Tank indicator (1-6 segment) is a visual representation of the amount of muriatic acid currently in the external canister. Click the tank bar to match the amount of muriatic acid in the canister.

Water Balance:

Salt Level, Alkalinity, Calcium Hardness, Cyanuric Acid: Recommended Pool Chemistry:

pH: 7.2 - 7.8 (use Muriatic acid to lower pH and Soda Ash to raise pH)

Combined Chlorine (Chloramines): None (super chlorinate to remove all chloramines)

Chlorine: 1.0 - 3.0 ppm

Cyanuric Acid: 30 - 50 ppm

Total Alkalinity: 80 - 120 ppm

Calcium Hardness: 200 - 400 ppm

Salt: 3000 - 4500 ppm (ideal 3400 ppm)

Metals: (Copper, Iron, Manganese): None

Nitrates: None

Phosphates: Less than 125 ppb

Total Dissolved Solids: below 5000 ppm



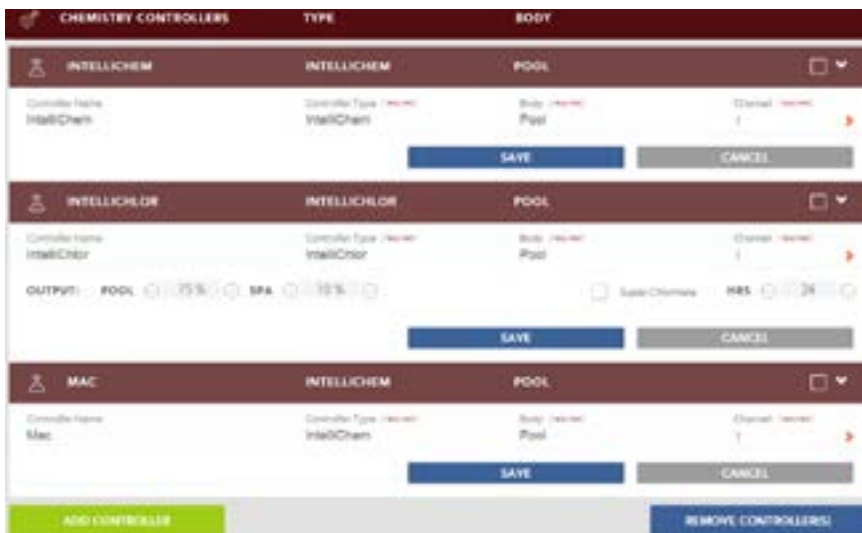
IntelliChem® Controller and IntelliChlor SCG
(separate body of water)



IntelliChem Controller and IntelliChlor SCG
(separate body of water)

Chemistry (Continued)

Configure Chemistry Controllers: From Settings (3 line icon, top right corner of screen, see page 2) select System Configuration > Chemistry Control. To return to the Home screen, click Settings > Manage My Pool.



Add Controller: Click Add Controller to add a chemistry controller. Name the controller in the Controller Name box. Click **Save** when finished setting up the chemistry controls shown below.

Controller Type: Select either IntelliChlor® or IntelliChem®. Configuration Note:

- One IntelliChlor and one IntelliChem, for shared equipment pool/spa.
- One IntelliChlor and two IntelliChem, for two separate bodies of water.

IntelliChem: The Body will be assigned to Pool or Spa (for separate body of water) or Poo/Spa (for shared equipment). Select a channel from 1-16.

IntelliChlor: The Body will be assigned to Pool or Spa (for separate body of water) or Poo/Spa (for shared equipment). Select a channel from 1-4.

Pool Output: Displays the pool chlorination output level from 0 to 100%. Use the -/+ button to decrease or increase the pool chlorination output level.

Spa Output: Displays the spa chlorination output level from 0 to 100%. Use the -/+ button to decrease or increase the spa chlorination output level.

SuperChlorinate: Check to start SuperChlorination. Select the hours from 1 to 96 hours.

Pumps

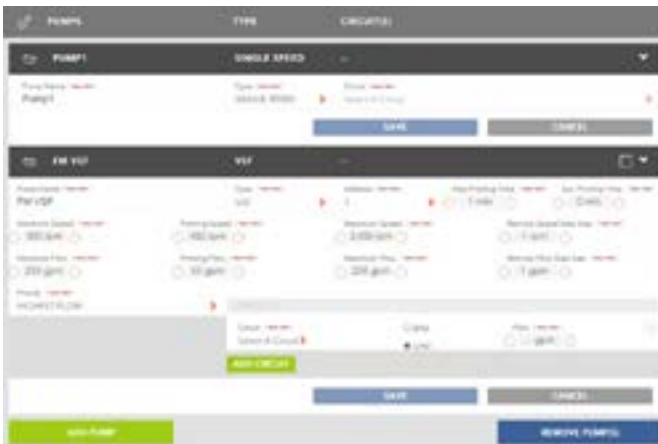
To access the Pump screen, from the Home screen, click the Pumps tab.

Assign a Pump Circuit: From Settings (3 line icon, top right corner of screen, see page 2) select System Configuration > Pumps. To return to the Home screen, click Settings > Manage My Pool.



To configure Pumps, see Settings > System Configuration > Pump.

Add Pump: Click Add Pump to add a new pump circuit. Name the pump in the Pump Name box. Type: Select the type of pump to add (Single Speed, Dual Speed, IntelliFlo® VS, VF, and VSF). Select a Circuit: Select the AUX circuit for the pump. Click **Save** to save the pump selection.



Pumps (Continued)

Single Speed Pump Settings: To manually turn the filter pump on or off, tap the Pool Filter Pump button on the second Pool screen (on Home screen). If the heater is on and active, and Heater Cool down feature is enabled; when you tap Pool Filter Pump button to turn off the filter, only the heater will turn off and the pool filter pump will automatically turn off after 5 minutes of heater cool down period. You can override the heater cool down period by tapping the button again to turn off the filter pump.

Dual Speed Pump Settings: Pump Type, Pump Name, Body, and High/Low Speed Circuits. For information about priming the pump.

Pump Type: Displays the current pump type. You can change the pump type if needed.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Check to save the name and return to the previous screen.

Body: Assign the pump to a body of water (pool, spa, or pool/spa [shared equipment dual body of water]).

High Speed Circuits: Select a circuit for the high speed. You can choose up to eight (8) high speed circuits. Tap the High Speed Circuits button. Tap Add Circuit and select an AUX circuit to assign the high speed to. Tap Check to save the circuit and return to the previous screen.

IntelliFlo VS Settings: Pump Type, Name, Address (1-16), Min. Speed (450 RPM), Max. Speed (3450 RPM), Step Size (10-250 RPM), Prime Time (0-5 min.), and Prime Speed (450-3450 RPM).

Pump Type: Displays the current pump type. You can change the pump type if needed.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Check to save the name and return to the previous screen.

Pump Address: Assign the pump address from 1-16.

Minimum Speed (RPM): This is the minimum pump speed but still generating sufficient flow in the pool. The system will not run lower than 450 RPM. The lower you can establish this flow rate the better the energy savings.

Maximum Speed (RPM): This is generally the pump speed required for backwashing the pool filter. The pump will not allow a higher speed of 3450 RPM in order to prevent damage to the pool system.

Step Size: The pump speed step size can be set from 10-250 minutes.

Priming Time (min): The system priming time can be set from 0-5 minutes.

Priming Speed (RPM): The system priming time can be set from 450-3450 RPM.

Speed Circuits: Assign the speeds to the circuits you wish to use.

Affiliated Circuit Settings:

Circuit: The assign circuit to control the pump speed.

Speed (RPM): Assign pump speed from 450 to 3450 for the selected circuit.

Pump Status: Shows the current power usage in Watts, speed, in revolutions per minute (RPM) while the pump is operating.

Pumps (Continued)

IntelliFlo VSF Settings: Pump Type, Name, Address (1-16), Min. Speed (450 RPM), Max. Speed (3450 RPM), Min. Flow (GPM 20 GPM), Max. Flow (140 GPM), Step Size (10 - 250 RPM), and Step Size (1-10 GPM).

Pump Type: Displays the current pump type. You can change the pump type if needed.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Save and return to the previous screen.

Pump Address: Assign the pump address from 1-16.

Minimum Flow (GPM): This is the minimum flow rate speed but still generating sufficient flow in the pool. The IntelliCenter Control System will not run lower than 20 GPM. The lower you can establish this flow rate the better the energy savings.

Maximum Flow (GPM): This is generally the flow rate required for backwashing the pool filter. The pump will not allow a higher flow rate of 140 GPM to prevent damage to the pool system.

Step Size (RPM): The pump speed step size can be set from 10-250 RPM.

Step Size (GPM): The pump flow rate step size can be set from 1-10 GPM.

Speed Circuits: Assign the speeds to the circuits you wish to use.

Affiliated Circuit Settings:

Circuit: The assign circuit to control the pump speed.

Flow (GPM): Assign pump flow rate from 20-140 for the selected circuit.

Speed (RPM): Assign pump speed from 450 to 3450 for the selected circuit.

Pump Status: Shows the current power usage in Watts, flow rate in gallons per minute (GPM) or revolutions per minute (RPM) while the pump is operating.

IntelliFlo VF Settings: Pump Type, Pump Name, Pump Address (1-16), Min. Flow (15 GPM), Max. Flow (134 GPM), and Step Size (1-10 GPM).

Pump Type: Displays the current pump type. You can change the pump type if needed.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Save and return to the previous screen.

Pump Address: Assign the pump address from 1-16.

Minimum Flow (GPM): The pump's minimum flow rate can be set from 15-134. This is the minimum flow rate speed but still generating sufficient flow in the pool. The IntelliCenter™ Control System will not run lower than 15 GPM. The lower you can establish this flow rate the better the energy savings.

Maximum Flow (GPM): The pump's maximum flow rate can be set from 15-134 GPM. This is generally the flow rate required for backwashing the pool filter. The pump will not allow a higher flow rate of 134 in order to prevent damage to the pool system.

Step Size (GPM): The pump flow rate step size can be set from 1-10 GPM.

Affiliated Circuit Settings:

Circuit: The assign circuit to control the pump speed.

Flow (GPM): Assign pump flow rate from 15-134 GPM for the selected circuit.

Pump Status: Shows the current power usage in Watts, flow rate in gallons per minute (GPM) or revolutions per minute (RPM) while the pump is operating.

History

To access the History screen, from the Home screen, click the History tab.

To return to the Home screen, click the Home tab.



Temperature/Usage: Displays history data for Pool, Spa, Solar and Air temperatures.

Chemistry/Feeds: Displays ph and ORP history data.

Jump To Today: Displays history data for the current date.

Current Week: Displays history data for the current week.

Current Month: Displays history data for the current month.

Settings

SETTINGS (see page 5): To access the Settings Menu, click the 3 line icon (top right corner of screen, see page 2) and select Settings. To return to the Home screen, click Manage My Pool.

HOME: Displays the Home screen. See page 2.

LIGHT GROUPS: Setup groups of lights. Manually turn on/off groups of lights from one button on the Home Light screen. See page 8 (Light Groups) and page 20 (Circuits Groups) for more information.

SCHEDULES: Setup daily and weekly schedules for pool/spa filter pump circuits.

VACATION: Setup vacation daily and weekly schedules for pool/spa filter pump circuits.

SYSTEM CONFIGURATION (see page 21):

GENERAL SETTINGS:

Personal Info: User name, and owner name, phone number and email address.

Location: Pool address, city, state, zip code and country. Auto fetch current location using longitude and latitude coordinates, and time zone.

Notifications: Add recipient, manage message types to display. Message Types: Circuits, Pumps, IntelliChlor, IntelliChem®, and Heaters. See page 3.

Advanced Settings: Setup Current date, Time, Clock Mode (12/24 hr.), Clock Source (Manual/Internet), Units (English/Metric), Priority (Manual Op Priority, Vacation Mode (On/Off), Valve Delay (Pump Off During Valve Rotation), Heater Cool Down Delay (Pump On during Heater Cool Down Delay), Calibration air and solar sensor.

Security: Setup system access permission with PIN numbers to system as Administrator or Guest.

CIRCUITS: SETUP AUX circuits for: OCP 0, Feature Circuits (generic/spillway), and Circuits Groups.

BODIES: Configure Pool and Spa capacity (gallons), and Spa Manual Heat On/Off.

CHEMISTRY CONTROL: Assign IntelliChlor® SCG and/or IntelliChem® Controller to body of water (pool/spa). Assign IntelliChem Controller channel (1-16).

OTHER EQUIPMENT: Assign OCP Valves, Heaters, Heater Groups and Pool and spa covers.

PUMPS: Assign pump types and AUX circuits.

REMOTES: Setup spa-side remotes (iS4, iS10, SpaCommand®, QuickTouch®).



- MANAGE MY POOL
- SETTINGS
- MANAGE USERS
- MANAGE SYSTEMS
- ENABLE/DISABLE SPA-SIDE REMOTES
- USERS GUIDE
- ABOUT
- LOGOUT

Light Groups (Settings) See page 10

Schedules (Settings)

To access the Schedule screen, click the 3 line icon (top right corner of screen, see page 2) and select Settings then Schedules. To return to the Home screen, click Manage My Pool. Also see Vacation on page 20.

Schedule Active: Check this box to enable the programmed schedule.

Add a Schedule: Click Add Program, select an AUX circuit from the list.

Occurrence: Once: Run the schedule one time. Repeats: Repeat the schedule.

Start Time: Set the start time (am/pm) to run the schedule.

Stop Time: Set the stop time (am/pm) for the schedule.

Don't Stop: Run the schedule continuously until manually turned off.

Days To Run: Check the days to run the schedule or click Weekdays, Weekends or Everyday. Click Clear to clear the settings.

Smart Start: Auto start the schedule.

The screenshot shows the 'SCHEDULES' settings page in the IntelliCenter Control System web application. At the top, there are navigation tabs: HOME, LIGHT GROUPS, SCHEDULES (selected), VACATION, and SYSTEM CONFIGURATION. Below the tabs, a status message reads: 'VACATION SCHEDULE ACTIVE. YOU MAY ADD, EDIT OR REMOVE PERS BUT THIS SCHEDULE IS NOT CURRENTLY ACTIVE.' The main content area is a form for configuring a schedule. It includes a 'SELECT A CIRCUIT' dropdown menu, a 'TIME: 8:00AM - 5:00PM' field, and a 'DAYS: EVERY DAY' field. There are also checkboxes for 'Circuit', 'Smart & Circuit', and 'Schedule Active'. A 'HEAT SET POINT' section is visible with a 'See Heater 1' link. The 'OCCURRENCE' section has radio buttons for 'Once' and 'Repeats'. The 'START TIME' is set to '8:00AM' and the 'STOP TIME' is set to '5:00PM'. The 'DAYS TO RUN' section has checkboxes for Sun, Mon, Tue, Wed, Thu, Fri, and Sat. Below this are buttons for 'WEEKDAYS', 'WEEKENDS', 'EVERY DAY', and 'CLEAR'. At the bottom of the form are 'SAVE' and 'CANCEL' buttons. A footer bar at the very bottom repeats the 'SELECT A CIRCUIT', 'TIME: 8:00AM - 5:00PM', and 'DAYS: EVERY DAY' information.

Vacation (Settings)

To access the Vacation screen, click the 3 line icon (top right corner of screen, see page 2) and select Settings then Vacation. To return to the Home screen, click Manage My Pool. Also see Schedules on page 19.

Vacation Mode: Check the On/Off is box to enable or disable Vacation Mode.

Apply Vacation Schedule Only During the Following Time Frame: Check to enable this feature.

Start/Stop Date: Enter the Vacation Mode start and stop date.

Add Program: Click Add Program, select an AUX circuit from the list.

Circuit Setting: Select an AUX circuit or pool and spa.

Schedule Active: Check this box to enable the programmed schedule.

Occurrence: Once: Run the schedule one time. Repeats: Repeat the schedule.

Start Time: Set the start time (am/pm) to run the schedule.

Stop Time: Set the stop time (am/pm) for the schedule.

Don't Stop: Run the schedule continuously until manually turned off.

Days To Run: Check the days to run the schedule or click Weekdays, Weekends or Everyday. Click Clear to clear the settings.

Smart Start: Auto start the schedule.

The screenshot displays the 'VACATION MODE' settings for a SPA. At the top, there is a green 'ON' button and a checkbox for 'Apply Vacation Schedule Only During The Following Time Frame'. Below this, 'START DATE' and 'STOP DATE' are set to '08-29-1917'. The main settings area includes 'CIRCUIT SETTING' (Spa), 'HEAT SET POINT' (85 F), 'OCCURRENCE' (Once), 'START TIME' (6:00 AM), 'STOP TIME' (5:00 PM), and 'DAYS TO RUN' (EVERY DAY). There are 'SAVE' and 'CANCEL' buttons at the bottom.

General Settings (System Configuration)

Circuits/Circuits Groups: See page 22

Bodies: See page 24

Chemistry Control: See page 13

Other Equipment: See page 25

Pumps: See page 14

Remotes: See page 27

General Settings

To access the General options, click the 3 line icon (top right corner of screen, see page 2) and select Settings > System Configuration > General Settings. To return to the Home screen, click Manage My Pool. Also see Schedules on page 19.

Personal Info: Enter the pool owner's name, phone number and email.

Location: Enter the pool address, city, state, zip code and country. FETCH/LAT: Click this button to populate your current location using longitude and latitude coordinates. time Zone: Select your time zone location. Auto Adjust Time Zone for DST: Check this box to automatically set Daylight Standard Time.

Notifications: Add recipient name, phone number, and email. Manage message types to display ALL/NONE. Message Types (Click right arrow to select message types: Circuits, Pumps, IntelliChlor, IntelliChem, and Heaters. See page 2.

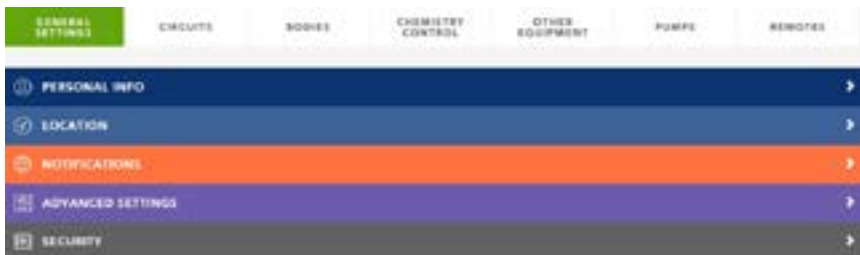
Advanced Settings: Setup Current date, Time, Clock Mode (12/24 hr.), Clock Source (Manual/Internet), Units (English/Metric), **Priority (Manual Op Priority, Vacation Mode (On/Off), Manual Heat, Valve Delay (Pump Off During Valve Rotation), Heater Cool Down Delay (Pump On during Heater Cool Down Delay), Calibration air and solar sensor.**

Security: Check the Security Enable box to enable the security feature. To allow Guests to have local access to the system check the Enable box. Check Show PIN Numbers to display passcode numbers.

Add Role: To add a guest, click Add Role. Select the name from the displayed list of user's (intellcenter.com).

Guest Permissions: Click the Down arrow to display the system permissions. Select which section(s) of the system that the guest has access to. Click Save to save the guest permissions.

Role: Select the Administrator permissions. Enter the four digit PIN. Enter the time allowed while entering the PIN before the system logs out.



Circuits (System Configuration)

To access the Circuits screen, click the 3 line icon (top right corner of screen, see page 2) and select Settings > System Configuration > Circuits (Feature Circuits and Circuit Groups). To return to the Home screen, click Manage My Pool.

OCP 0 - OCP 0: Displays the IntelliCenter™ Control System AUX circuits detected installed hardware (single body: i5P, i8P, i10P, shard equipment (dual body), i5PS, i8PS, i10PS and i10D). *Note: A Wireless Controller and/or Indoor Control Panel will also be displayed.*

Circuit Name: Enter a Circuit Name from the displayed list of names or enter a different name.

Circuit Type: Click the Down arrow to display the Circuit Types (Functions). Select the function for this circuit. **Circuit Types:** Generic, Spillway, Master Cleaner, Chem Relay, Light, IntelliBrite, GloBrite, GloBrite White, MagicStream, Dimer, ColorCascade and Master Cleaner 2.

Show as Feature (Yes/No): Show assigned Feature Circuits in the Home screen Features screen.

Freeze Protection: Enable/Disable circuit freeze protection.

Egg Timer: Set the Hours, Minutes to run the program. The Egg Timer is a specified time delay (hrs/mins) for the circuit, once it is turned on.

Don't Stop: Select a manual time-out of 0-12 hours for this circuit.

Save: Click Save to save the circuits settings.



Feature Circuits (see page 8)

Circuit Groups

To access the Circuits screen, click the 3 line icon (top right corner of screen, see page 2) and select **Settings > System Configuration > Circuits (Feature Circuits and Circuit Groups)**. To return to the Home screen, click **Manage My Pool**.

Add Circuit Group: Click to assign Circuit Group settings.

Circuit Name: Enter a Circuit Name from the displayed list of names or enter a different name.

Add Circuit (AUX): Click the Down arrow to display the available circuits to add to a group or circuits.

Action: To enable or disable the Group of Circuits, click either Turn On or Turn Off.

Save: Click Save to save the circuits settings.



Bodies (System Configuration)

To access the Bodies screen, click the 3 line icon (top right corner of screen, see page 2) and select Settings > System Configuration > Bodies. To return to the Home screen, click Manage My Pool.

OCP 0 - OCP 0 / Capacity / Spa Manual Heat: Displays the IntelliCenter® Control System AUX circuits detected installed hardware (single body: i5P, i8P, i10P, shared equipment, i5PS, i8PS, i10PS and i10D). *Note: A Wireless Controller and/or Indoor Control Panel will also be displayed.*

Pool: Click Pool to assign the body of water (pool) settings. *Note: Pool and Spa display for shared equipment. For one body of water, only one body of water will display.*

Body Name: Enter a name for the pool body of water.

Capacity: Enter the capacity of the pool body of water.

Shortcut Button:

Save: Click Save to save the circuits settings.

Spa: Click Pool to assign the body of water (pool) settings. *Note: Pool and Spa display for shared equipment. For one body of water, only one body of water will display.*

Body Name: Enter a name for the spa body of water.

Capacity: Enter the capacity of the spa body of water.

Spa Manual Heat: Check this box to enable Spa Manual Heat. Example: When the Spa pump button (or from the Spa-Side remote, or Wireless Controller) is manually turned on, the pump will turn on and the heater and the spa will begin to heat even if the heater is set to OFF. This feature allows you to program the pool pump to filter daily with the heater set to off, and then be ready to heat whenever the Spa button is pressed. Heat Enabled is switched on by default.

Shortcut Button: Click the Down arrow to display the available AUX circuits. Select the On/Off AUX circuits to display on the Home screen.

Save: Click Save to save the settings.

The screenshot displays two configuration panels for 'Bodies'. The top panel is for a 'POOL - POOL' with a capacity of 39,800 GAL and 'SPA MANUAL HEAT' set to 'N/A'. Below the title bar, there are fields for 'Body Name' (Pool) and 'Capacity' (39800). A grid of 'Shortcut Button' options is shown, with 'AUX1' selected. A 'SAVE' button is visible at the bottom right of this panel. The bottom panel is for a 'SPA - SPA' with a capacity of 5,800 GAL and 'SPA MANUAL HEAT' set to 'OFF'. It also has 'Body Name' (Spa) and 'Capacity' (5800) fields. A 'Spa Manual Heat' checkbox is present and unchecked. A similar grid of 'Shortcut Button' options is shown, with 'AUX1' selected. A 'SAVE' button is visible at the bottom right of this panel.

Chemistry (System Configuration) See page 11

Other Equipment (System Configuration)

To access the Other Equipment screen, click the 3 line icon (top right corner of screen, see page 2) and select Settings > System Configuration > Other Equipment. To return to the Home screen, click Manage My Pool.

VALVES:

OCP 0 - Valves: Click to assign the valve type. *Note: Displays the IntelliCenter® Control System valve assignment for the detected installed hardware (single body: i5P, i8P, i10P, shard equipment, i5PS, i8PS, i10PS and i10D).*

Return (1): Enter a Valve Name from the displayed list of names or enter a different name.

Type: *Standard* is the default valve type.

Circuit Pool: *Pool* is assigned for the Return Valve (1).

Circuit Spa: *Spa* is assigned for the Return Valve (1).

Intake (1): *Standard* is the default valve type.

Circuit Pool: *Pool* is assigned for the Return Valve (1).

Circuit Spa: *Spa* is assigned for the Return Valve (1).

Save: Click Save to save the circuits settings.

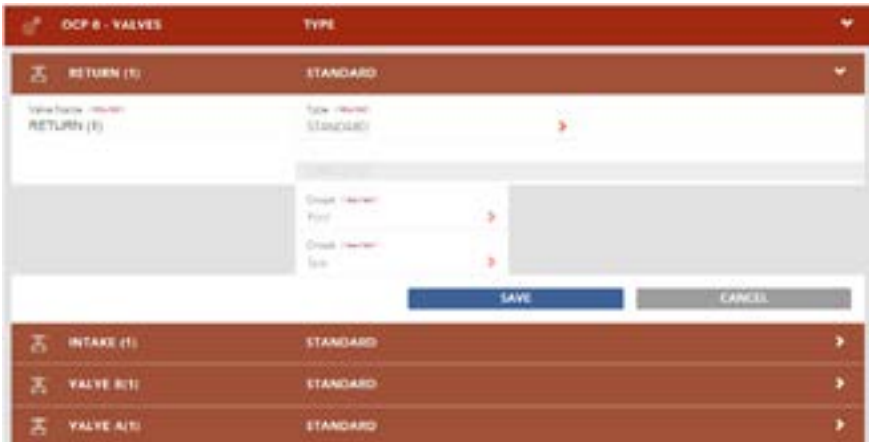
Optional Personality Card: *Note: Displays the optional IntelliCenter™ Control System valve assignment for the detected installed hardware (single body: i5P, i8P, i10P, shard equipment (dual body), i5PS, i8PS, i10PS and i10D).*

Valve B (1) - Valve A (1): Enter a name for the optional Valve B (1), Valve A (1) from the displayed list of names or enter a different name.

Type: *Standard* is the default valve type.

Circuit Type: is Select an AUX circuit for Valve B (1) and Valve A (1).

Save: Click Save to save the settings.



Other Equipment (System Configuration)

HEATERS:

Add Heater: Assign the heater to a body of water.

Heater Name: Enter a name for the heater or select a name from the displayed list.

Type: *Standard* is the default valve type.

Body: Assign the heater to a body of water (pool default)

Save: Click Save to save the settings.

The screenshot displays a web application interface for configuring heaters. It features a table with three columns: HEATERS, TYPE, and BODY. Below the table, there are two heater configuration cards. The first card is for 'SOLAR HEATER 1' with a 'SOLAR' type and 'POOL' body. It includes fields for 'Heater Name' (Solar Heater 1), 'Type' (Solar), and 'Body' (Pool), along with a 'Start Temp. Delta' field and a 'Recirculation Control' checkbox. The second card is for 'GAS HEATER 1' with a 'GENERIC' type and 'POOL' body, including fields for 'Heater Name' (Gas Heater 1), 'Type' (Gas Heater), and 'Body' (Pool). At the bottom of the interface, there are buttons for 'ADD HEATER' and 'REMOVE HEATERS', along with 'SAVE' and 'CANCEL' buttons for each heater card.

HEATERS	TYPE	BODY
SOLAR HEATER 1	SOLAR	POOL
GAS HEATER 1	GENERIC	POOL

Pumps (System Configuration) See page 14

Remotes (System Configuration)

To access the Other Equipment screen, click the 3 line icon (top right corner of screen, see page 2) and select Settings > System Configuration > Remotes. To return to the Home screen, click Manage My Pool.

Add Remote: Remote Name: Enter a name for the remote or select a name from the displayed list.

Type: Select the spa-side remote from the list (iS4, iS10, SpaCommand®, QuickTouch®). Assign the displayed remote buttons.

Body / Select a Body: Select either Pool or Spa.

Pool Control / Select a Pump: Select a pump from the list (Filter Pump).

Active: Check this box to enable the remote.

Button / Select a Circuit: Assign each button to an AUX circuit.

Save: Click Save to save the settings.

The screenshot displays the 'Remotes' configuration page. At the top, there are navigation tabs: GENERAL SETTINGS, CIRCUITS, BODIES, CHEMISTRY CONTROL, OTHER EQUIPMENT, PUMPS, and REMOTES. Below these is a table of remotes:

REMOVES	TYPE	ADDRESS	ACTIVE
IS4 REMOTE 128	14		YES

Below the table, the configuration form for the selected remote 'IS4 Remote 128' is shown. It includes fields for 'Remote Name' (IS4 Remote 128) and 'Type' (iS4). There are four button assignment sections: 'Button 1' (AUX1), 'Button 2' (AUX2), 'Button 3' (AUX3), and 'Button 4' (AUX4). At the bottom of the form are 'SAVE' and 'CANCEL' buttons. Below the form, there is a summary row for the selected remote and two main action buttons: 'ADD REMOTE' and 'REMOVE REMOTE(S)'.

Accept Invitation

Please enter the password you would like to use

1. Administrator logs into IntelliCenter®
2. Selects the “hamburger” drop down menu icon in the top right (ideally we could insert a pic of this in this sentence)
3. Choose the “Manage Users” selection
4. Same
5. same

Existing Account

I already have an account - I want to attach this pool system to my existing account.”

Click ATTACH and is succesful Has been successfully attached to the My Property system. My Property the property name? Maybe we should list this info:

Has been successfully attached to the following Pool system:

Edgard Rodriguez 123 Sunny Happy Place Moorpark, CA 93021

Click OPEN to connect to IntelliCenter.com

Invitation Has Expired

To resend the invite, please ask the Pentair IntelliCenter® pool/spa control system Administrator to generate a new invitation.





1620 HAWKINS AVE., SANFORD, NC 27330 • (919) 566-8000
10951 WEST LOS ANGELES AVE., MOORPARK, CA 93021 • (805) 553-5000
WWW.POOL.COM

All indicated Pentair trademarks and logos are property of Pentair Inc. or its global affiliates in the U.S.A. and/or other countries. Third party registered and unregistered trademarks and logos are the property of their respective owners

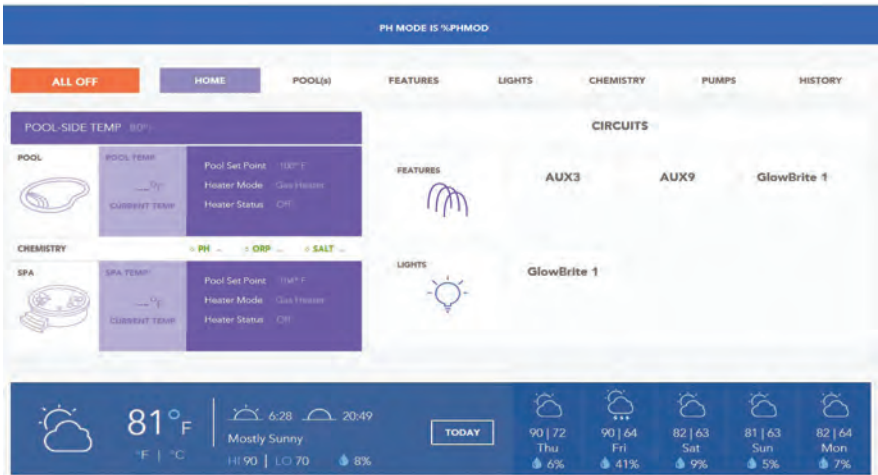
© 2021 Pentair Inc.. All rights reserved. This document is subject to change without notice.



P/N 523351 Rev. A 4/2021



INTELLICENTER CONTROL SYSTEM WEB APPLICATION



USER'S GUIDE

CUSTOMER SERVICE / TECHNICAL SUPPORT

Customer Service (8 A.M. to 8 P.M.)

Phone: (800) 831-7133

Fax: (800) 284-4151

Web site

Visit www.pentairpool.com

Technical Support

Sanford, North Carolina (8 A.M. to 8 P.M. ET)

Phone: (919) 566-8000

Fax: (919) 566-8920

Moorpark, California (8 A.M. to 5 P.M. PT)

Phone: (805) 553-5000

Fax: (805) 553-5515

CONTENTS

Web App Overview/Features	1
Home Screen (Top Bar)	3
Add Users and Login to the Web App	4
Pool(s) Pool/Spa Controls	7
Features	8
Lights	9
Light Groups	10
Chemistry	11
Pumps	14
History	17
Settings	18
Schedules	19
Vacation	20
General Settings	20/21
Circuits (System Configuration)	22
Circuits Groups	23
Bodies (System Configuration)	24
Other Equipment (System Configuration)	25
Remotes (System Configuration)	27

IntelliCenter® Control System

Web App Overview

Welcome to the Pentair IntelliCenter Control System Web application.

This User's Guide contains all of the information you need to remotely access daily pool and spa operations using the Web Application.

Features

- 4" x 2.5" capacitive touch sensitive color touch screen with finger tap navigation, 1280 x 720 resolution
- Day Time and Night Time color screen modes
- Multifunction Schedules/Programs
- Adjustable schedule timer for easy system scheduling
- 100 Schedules/Programs
- Adjustable schedule timer for easy system scheduling
- Wireless Control Panel "Deep Sleep" extend battery life feature
- 64 Feature Circuits: Allow additional speeds on a variable speed pump or an actuator to be assigned without using an existing auxiliary circuit.
- 16 Groups: Assign groups of lighting, heaters, pumps circuits that can be controlled by a single button.
- Supports up to 16 IntelliFlo® VF and VS Pumps
- Supports up to four SpaCommand® and iS10 Spa Side Remotes, and 2 iS4 and QuickTouch® II Wireless Spa Side Remotes
- Supports IntelliBrite® LED Color lights
- Valves: Intake/Return plus A and B valve circuits. Expandable up to 13 valves.
- 20 custom circuit naming - 92 Pre-installed names
- Indoor Control Panel, Wireless Hand-Held Remote, Outdoor Control Panel
- IntelliChlor® and iChlor® Salt Chlorine Generator compatibility
- 40 Auxiliary circuits (includes three Expansion Panels)
- 32 Feature circuits
- Spa, Manual Heat Function
- Supports two separate bodies of water using model i10D Personality Card
- System Reboot from touch screen control panels
- Spa Side Control Enable/Disable
- Solar Heating Option/Support
- 16 Heat Pump Support: RS485 Support, Heat Pump Cooling Support.
- Safety and Functional Delay(s) and Cancel Systems Delays
- Real Time Clock
- Assignable Circuit Names and Custom Circuit Names
- Special Circuit Functions
- Two Speed Pump Support
- English/Metric Support
- Sensor Calibration
- Passcode Protection
- USB port for use with a standard flash drive. Save the complete system's configuration, upgrade the system's firmware.

Overview

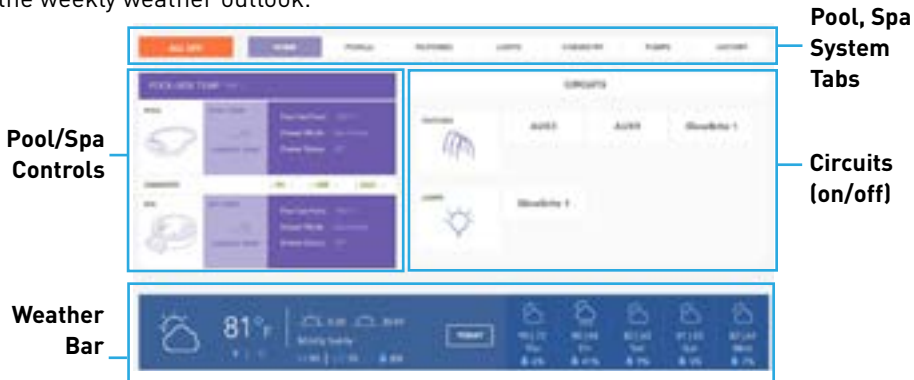
The IntelliCenter® Control System Web Application Home screen gives you complete control of your pool and spa from anywhere via the Internet.

Home Screen

Displays the Home screen. Click on the tabs to access the Web App features: The Pool, Features, Lights, Chemistry, Pumps and History screens to control adjust pool/spa water temperature, turn on/off pump, Lights, circuits and sanitization.

Weather Bar: Display the current ambient temperature.

Today/Forecast: Click Today/Forecast to toggle between the current weather and the weekly weather outlook.



POOL-SIDE TEMP (Temp 77°F): Displays the current ambient temperature.

ALL OFF / ALL ON: Use this button to switch all light circuits on or off.

HOME: Displays the Home screen. Adjust heater temperature setpoint. Manually turn pool/spa light circuits and Feature circuits on/off. Click on the Home screen tabs to access Pool and Spa settings, Features, Lights, Chemistry, and Pumps settings and History screens. Control the pool and spa daily operations.

POOL(s) (see page 3): Displays the Pool/Spa settings. Turn pool filter pump on/off. Adjust heater temperature setpoint.

FEATURES (see page 8): Displays the Features circuits (lights, cleaners ect.). Turn on/off assigned feature circuits.

LIGHTS (see page 9): Displays the light circuits. Turn individual and all light circuits on/off. Select light shows and fixed colors.

CHEMISTRY (see page 11): Display the installed IntelliChlor SCG and/or IntelliChem devices. Control IntelliChlor® SCG and IntelliChem® Controller chemistry sensitizers. Adjust water, pH and ORP levels, and pool and spa chlorine levels.

PUMPS (see page 14): Displays the installed pump circuits and settings. Control pump circuits. View IntelliFlo pumps speed (RPM), flow rates (GPM) and power usage (Watts vs Peak usage).

HISTORY (see page 17): Displays the pool and spa equipment usage. View current pool, spa, solar and air temperatures and chemistry pH and ORP feeds.

Home Screen (Top Bar Options)

Notifications Icon

Click the Bell icon on the top of the screen to display the available Notifications options. The Bell icon with Red Number Badge indicates the current number of system status, warnings and alerts. *See Settings > General Settings > Notifications to manage message types (Circuit (0-1), IntelliChem® (0-16), Pumps (0-10), Heaters (11) and IntelliChlor® SCG (0-8), page 18.*



Filter By: Click the Filter By box to see the options:

All: Display all notification categories.

Alerts: Display all current alerts messages.

Warnings: Display all current warnings that may require immediate attention.

Information: Display general system information.

Status Messages: Display current status information. The system water and air sensors are constantly monitored for errors. If a sensor error is detected, the displayed error is listed in the Status Messages.

Local Messages: Display local system messages (email, etc.)

Gear Icon: (Located top right side corner of screen)

Click the Gear icon to display the current USER information and Logout option.

Logged in as: Displays the current name of user@pentair.com

Change Username/Email Address:

Change username and email address.

Change Password: Change current user password.

Manage Pools: Login to another user to manage the pool operations.



3 Line Icon (Located top right side corner of screen)

Click the Line icon to display the system options.

Manage My Pool: Display the current user's Home screen.

Settings (see page 18): Display system settings: Home, Lights Group, Schedules, Vacation and System Configuration. Use the Settings feature to configure pool/spa equipment settings. For more information, see Settings on page 17.

Manage Users (see page 4-5): Display all system user's email accounts. Add or delete guest and administrator user from this screen.

Manage Installations (see page 6): Display all user system installations.

Enable/Disable Spa-Side Remotes: Enable/Disable current users installed spa-side remotes.

Users Guide: Web App Online User's Guide (PDF).

About: Displays the Web App software version.

Logout: Logout of current user account.



MANAGE MY POOL
 SETTINGS
 MANAGE USERS
 MANAGE SYSTEMS
 ENABLE/DISABLE SPA-SIDE REMOTES
 USERS GUIDE
 ABOUT
 LOGOUT

Add Users and Login to the Web App

Before you can login in to www.intellicenter.com using the Web App, you need to add a new user account name and email address in the IntelliCenter™ Control System Outdoor Control Panel located in the main system Load Center.

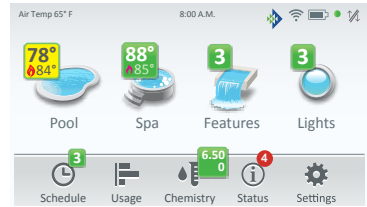
Pentair User Portal/Add a New Account:

From the Home screen on the Outdoor Control Panel tap **Settings > Pentair User Portal**.

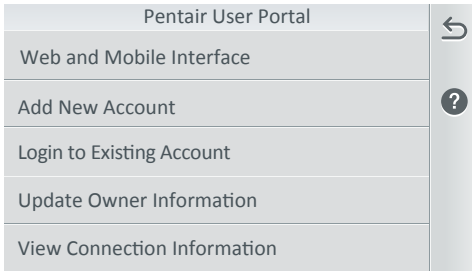
Enable Web & Mobile Interface: Tap this button and select ON.

Add New Account: Enter the owner's information, email address, property name, password. The system will attempt to connect to the owner's account email address (via the Internet) to www.intellicenter.com.

Connecting to your pool using the Web App: Go to www.intellicenter.com and sign in using the pool owner's user email address. Select the your pool listed on the Installations screen to display the Home screen.



Pentair User Portal



Web and Mobile Interface: Tap to access the Web and Mobile Interface screen. The default setting for Web Interface is ON. This enables the Web App and Mobile Interface which allows local network and Internet communications to your home network. To disable Web based and mobile interface, set to OFF.



Note: For the IntelliCenter Control System to connect to the Web requires connection of the Wireless Bridge Transceiver Antenna to the Outdoor main circuit board. For installation instructions, see the IntelliCenter Control System Installation and User's Guide.

Login to Existing Account (www.intellicenter.com): Enter email address and password. The system will attempt to connect to the owner's account email address via the Internet connection.

Update Owner Information: Edit owner information: Property Name, Name of Owner, Address, City, State, Zip Code, County, Time Zone, Phone Number, E-Mail. Location information is populated when entered in General > Location, Date & Time.

View Connection Information: View server connection information: Last messages received, total number of server connects.

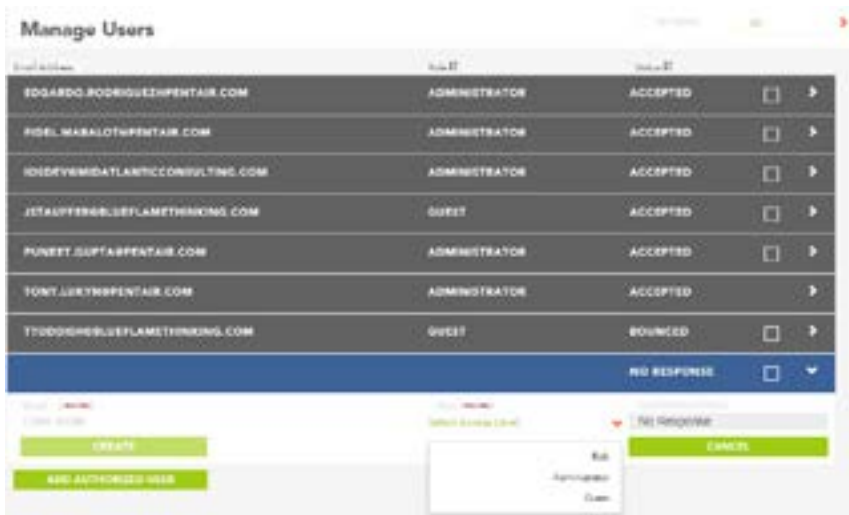
Add Users and Login to the Web App (Continued)

Manage Users

To access the Manage Users screen, click the 3 Line icon located top right side of the screen. Click Manage My Pool to close this screen and return to the main Pool/Spa screen.

The Manage Users screen displays the system user's name and email accounts and level of assigned access (Administrator, guest). Add or delete user accounts from this screen. **Note: Each user name and email address displayed in the Manager Users screen must match with user name and email address in the Pentair User Portal Outdoor Control Panel. For more information see page 4.**

Add Authorized User: Enter the users name and address.
Select Access Level: Select either Administrator or Guest.



Add Users and Login to the Web App (Continued)

Manage Installations

To access the Manage Installations screen, click the 3 Line icon located at the top right side of the screen. Click Manage My Pool to close this screen and return to the main Pool/Spa screen.

The Manage Users screen displays the system user's name and email accounts and level of assigned access (Administrator, guest). Add or delete user accounts from this screen. **Note: Each user name and email address displayed in the Manager Users screen must match with user name and email address in the Pentair User Portal Outdoor Control Panel. For more information see page 5.**

Manage Installations: Display user system installations information.

View User Account Information: Click on the Installation name to view the user account information.

The screenshot displays the 'INSTALLATIONS' management interface. At the top, there is a search bar and a 'VIEW' dropdown set to 'ALL'. The main area contains a table of installations:

Name	ID	Actions
AAA	40-110	[Edit] [Delete] [Refresh]
BBB	40-111	[Edit] [Delete] [Refresh]
CHICAGO	1940 Mainfield Dr., Rosemont Park, IL 60012	[Edit] [Delete] [Refresh]
DEWIER	40-83	[Edit] [Delete] [Refresh]
ED1	40-165	[Edit] [Delete] [Refresh]
ED11	40-104	[Edit] [Delete] [Refresh]
MELVIN	40-80	[Edit] [Delete] [Refresh]

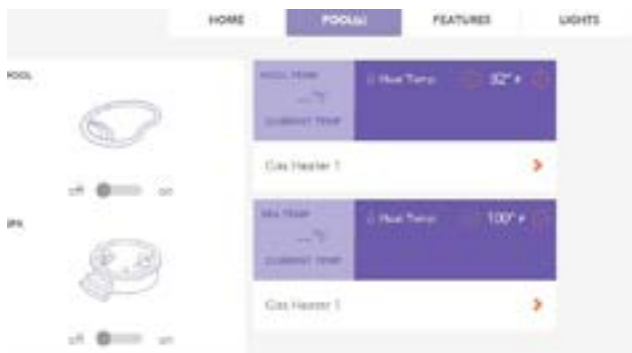
Below this list, the 'MELVIN' installation is selected, showing a status of 'STAND BY' and 'Connected' at '10:00'. A table below provides details for the user accounts associated with this installation:

Name	Email	Status
John Doe	john.doe@example.com	Active
Jane Smith	jane.smith@example.com	Inactive
Bob Johnson	bob.johnson@example.com	Active
Alice Brown	alice.brown@example.com	Active

A 'MANAGE INSTALLATION' button is located at the bottom right of the detailed view.

Pool(s) Pool/Spa Controls

To view the Pool/Spa controls, Click on the POOL(S) tab from the Home screen. Click the Home tab to return to the Home screen.



Pool(s): To access the Pool and Spa settings, click on the Pool or Spa icon on the Home screen.

Current Temp: Displays the current pool water temperature.

Pool On/Off Slider: Click Off/On to turn pool filter pump off/on.

Spa On/Off Slider: Click Off/On to turn spa filter pump off/on.

Pool /Spa Temp: Displays the current pool or spa water set point temperature. Click **+ or -** to increase or decrease the pool or spa water set point temperature.

Heat Temp: Heat Temp flame icon indicates the heat source is active.

Gas Heater (Pool or Spa): Click to access heat source settings. Turn heat source On or Off.

Features

Features: Click the Features tab on the Home screen to display the Feature circuits screen. Use the ON/OFF button to turn a Feature Circuit (AUX) on or off. There are two types of Feature Circuits, **Generic** or **Spillway** (pool/spa) circuit or **Groups** of combined auxiliary circuits (water features, set spa, jets, set spa heater temperature, switch on spa lighting etc.). Click the Home tab to return to the Home screen.



Assign a Feature Circuit: From Settings (3 line icon, top right corner of screen, see page 2) select System Configuration > Circuits > Feature Circuits.

Feature Circuits: Displays the assigned Feature Circuits. Click Add Feature Circuit to add a Feature Circuit.

Show as Feature (Yes/No): Show assigned Feature Circuits on the Home screen Features screen.

Egg Timer: Display Egg Timer duration.

Circuit Name: Enter a Circuit Name.

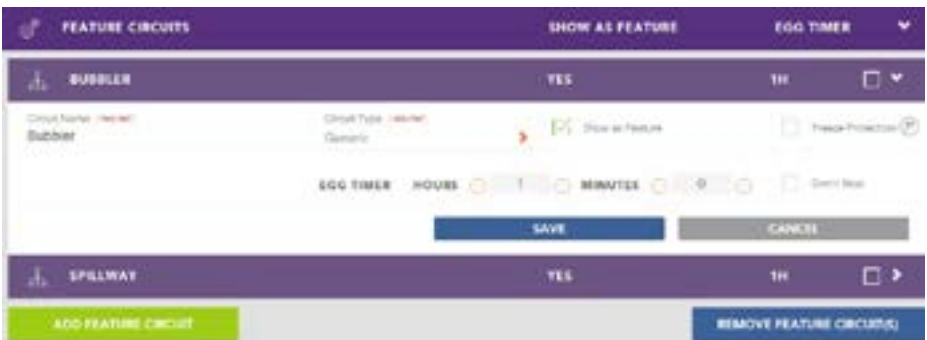
Circuit Type: Choose Generic or Spillway.

Show As Feature: Display the Feature Circuit on Home Screen

Freeze Protection: Enable/Disable circuit freeze protection.

Egg Timer: Hours, Minutes, Don't Stop (0-24 hrs.). Select a manual time-out of 0-12 hours for this circuit (Default is 12 hrs.). The Egg Timer is a specified time delay (hrs/mins) for the circuit, once it is turned on.

Freeze Protection: Assign this circuit freeze protection.



Lights

Lights (Home Screen): Click on the Lights icon or the Lights tab on the Home screen to access light circuits. Use the Home screen Light AUX circuits to manually switch individual light circuits on or off or use the **All On /All Off** button to turn on or off all light circuits including Groups of lights (see page 10). Click the Home tab to return to the Home screen.

Note: To assign light circuits; from Settings (3 line icon, top right corner of screen, see page 2) select System Configuration > Circuits. Light circuits settings include the Egg Timer (Don't Stop), Show as Feature and Freeze Protection.

Note: For Light Groups, see page 10.



Light ON/OFF Button (Color Sync™, MicroBrite® IntelliBrite®, ColorCascade®, GloBrite® Light (Color and White), and MagicStream® lights): Click the ALL ON / ALL OFF to turn all light circuits on or off.

GloBrite White Light Dimmer Level: Click the GloBrite White button to adjust the brightness level. Use the +/- button to increase or decrease the brightness levels of the light. Brightness levels are from 50%, 75% and 100% increments.

Fixed Light Colors: White, Green Blue, Red, Light Green, Aqua, Magenta and Light Red): For IntelliBrite, ColorCascade, GloBrite Light, and MagicStream: To change the color of the light; from the Select Light screen, click one of the colors, then click one of the displayed color buttons to select a SAM color. Click the On/ AUX light name button to turn the selected light on or off. Click on AUX to stop the SAM light Rotation feature. To Capture a color, click the Capture button. **Note: Color choice is light dependant. Some lights only display white.**

Light Shows: IntelliBrite, ColorCascade, GloBrite Light, and MagicStream: Click one of the displayed Light Shows to switch the light show on or off. The options are: *Romance, American, Royalty, Party, Caribbean, and Sunset.*

Lights (Continued)

MagicStream (IntelliBrite® Light) Lighting Features

Capture: You choose one color of light. The color does not change

Rotate Start, Rotate Stop: Start or stop light colors.

Color Sync: Sync all colors with other MagicStream® light.

Color changing mode: the color of the light changes automatically, according to one of the following three programs:

Color Sync: In this mode, multiple laminars will change colors together.

Random: Colors will change at about ten second intervals but in a completely random sequence. In this mode, multiple laminars will NOT change colors together.

Party: Colors will change randomly and slowly at first, then speed up, until the sequence ends with quick flashes and strobes. The sequence then repeats, beginning with the slow changes. In this mode, multiple laminars will NOT change colors together.

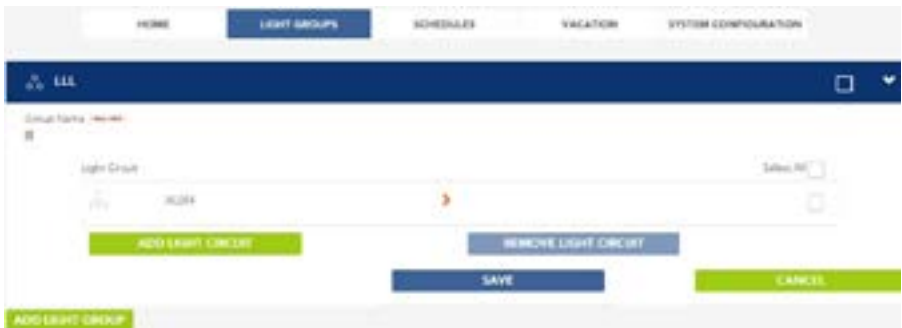
Note: The MagicStream circuit function includes the IntelliBrite LED light shows and fixed color features as well as the standard options: **Rotate Start/Stop, Mode (Color Sync), Capture, Thumper On/Off, Recall and Reset.** From the MagicStream® Light screen you can manually turn on or off the MagicStream Laminars and synchronize with other IntelliBrite LED lights. The MagicStream Laminar water effect provides a clear, turbulence-free stream of water that can be lit with a fiber optic cable. The built-in solenoid **Thumper** can create a random wrinkle in the laminar's water stream to display a brilliant spot of light that moves along the stream's arc.

Light Groups

Assign Light Groups: From Settings (3 line icon, top right corner of screen, see page 2) select Light Groups. Light Groups circuits settings include the Egg Timer (Don't Stop), Show as Feature and Freeze Protection.

Circuit Name: Enter the name of the light group in the name field.

Add Light Group: Click **Add Circuit** and **Select A Circuit** to add a circuit to the light group. Click Add Circuit again to add multiple circuits. Click **Save** to save the Light Group.



Chemistry (Home Screen)

Chemistry (Home Screen): Click the Chemistry tab on the Home screen to display the configured Chemistry Controllers (IntelliChlor® SCG and/or IntelliChem® Controller). Click the Home tab to return to the Home screen.

Configure Chemistry Controllers: From Settings (3 line icon, top right corner of screen, see page 2) select System Configuration > Chemistry Control. See page 13.



IntelliChlor SCG Controller:

Pool Output: Displays the pool chlorination output level from 0 to 100%. Use the +/- button to decrease or increase the pool chlorination output level.

Spa Output: Displays the spa chlorination output level from 0 to 100%. Use the +/- button to decrease or increase the spa chlorination output level.

Salt Level: Displays the current salt level (ppm).

SuperChlorinate: Click the Off/On button to switch on or off superchlorinate. Select the hours from 1 to 96 hours.



IntelliChem Controller (pool/spa) (use +/- controls to adjust the pH level and ORP value.

pH/Tank Level: pH is the concentration of hydrogen ions in the pool water. pH is a quantity measuring the acidity (0 to 7) or alkalinity (7 to 14) of the pool water. The pH low and high alarm set point values are preset in the factory to 6.7 and 7.9. For a pool, the ideal pH is between 7.2 - 7.8 (a pool professional should regularly check the water for metal presence, cyanuric acid levels and TDS (total dissolved solids)). To maintain accurate pH pool water measurements, regular maintenance and calibration of the pH probe is necessary before the summer season.

Continue on next page.

Chemistry (Home Screen)

ORP/Tank Level: Oxidation-Reduction Potential (ORP) is the concentration level of disinfectant (chlorine, bromine, active oxygen) present in the pool water. The ORP level is the oxidant quality in the pool water which is the result of the ratio quantity of disinfectant / quantity of pollution. It is advised to keep this "disinfection potential" measurement between 400 mV and 800 mV. To maintain accurate ORP pool water levels, regular maintenance of the ORP probe is advisable. ORP probe calibration is necessary before the summer season.

Tank Level: Click the tank segment (1-6) to match the amount of muriatic acid currently in the canister. The canister can hold a maximum of 3-1/2 gals. of muriatic acid. The Tank indicator (1-6 segment) is a visual representation of the amount of muriatic acid currently in the external canister. Click the tank bar to match the amount of muriatic acid in the canister.

Water Balance:

Salt Level, Alkalinity, Calcium Hardness, Cyanuric Acid: Recommended Pool Chemistry:

pH: 7.2 - 7.8 (use Muriatic acid to lower pH and Soda Ash to raise pH)

Combined Chlorine (Chloramines): None (super chlorinate to remove all chloramines)

Chlorine: 1.0 - 3.0 ppm

Cyanuric Acid: 30 - 50 ppm

Total Alkalinity: 80 - 120 ppm

Calcium Hardness: 200 - 400 ppm

Salt: 3000 - 4500 ppm (ideal 3400 ppm)

Metals: (Copper, Iron, Manganese): None

Nitrates: None

Phosphates: Less than 125 ppb

Total Dissolved Solids: below 5000 ppm



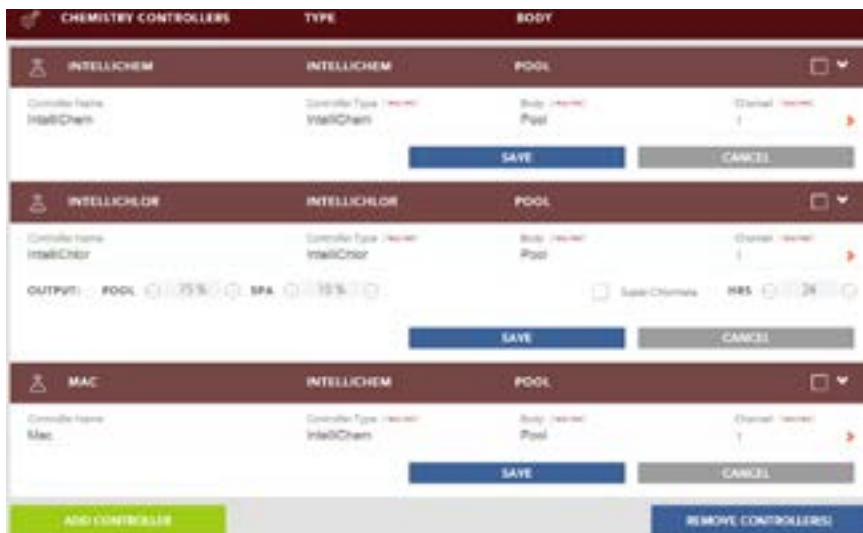
IntelliChem® Controller and IntelliChlor SCG (separate body of water)

IntelliChem Controller and IntelliChlor SCG (separate body of water)



Chemistry (Continued)

Configure Chemistry Controllers: From Settings (3 line icon, top right corner of screen, see page 2) select System Configuration > Chemistry Control. To return to the Home screen, click Settings > Manage My Pool.



Add Controller: Click Add Controller to add a chemistry controller. Name the controller in the Controller Name box. Click **Save** when finished setting up the chemistry controls shown below.

Controller Type: Select either IntelliChlor® or IntelliChem®. Configuration Note:

- One IntelliChlor and one IntelliChem, for shared equipment pool/spa.
- One IntelliChlor and two IntelliChem, for two separate bodies of water.

IntelliChem: The Body will be assigned to Pool or Spa (for separate body of water) or Poo/Spa (for shared equipment). Select a channel from 1-16.

IntelliChlor: The Body will be assigned to Pool or Spa (for separate body of water) or Poo/Spa (for shared equipment). Select a channel from 1-4.

Pool Output: Displays the pool chlorination output level from 0 to 100%. Use the -/+ button to decrease or increase the pool chlorination output level.

Spa Output: Displays the spa chlorination output level from 0 to 100%. Use the -/+ button to decrease or increase the spa chlorination output level.

SuperChlorinate: Check to start SuperChlorination. Select the hours from 1 to 96 hours.

Pumps

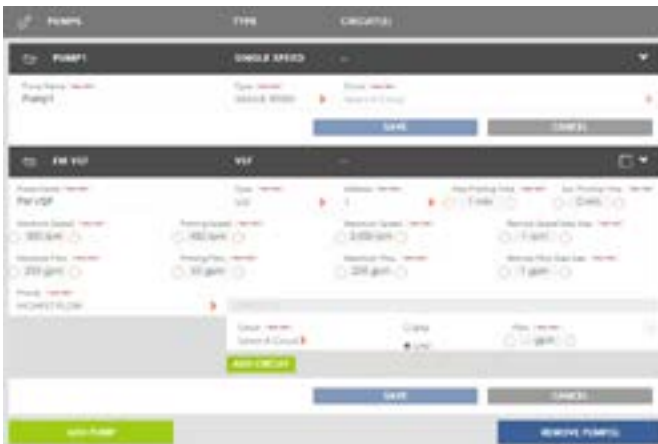
To access the Pump screen, from the Home screen, click the Pumps tab.

Assign a Pump Circuit: From Settings (3 line icon, top right corner of screen, see page 2) select System Configuration > Pumps. To return to the Home screen, click Settings > Manage My Pool.



To configure Pumps, see Settings > System Configuration > Pump.

Add Pump: Click Add Pump to add a new pump circuit. Name the pump in the Pump Name box. Type: Select the type of pump to add (Single Speed, Dual Speed, IntelliFlo® VS, VF, and VSF). Select a Circuit: Select the AUX circuit for the pump. Click **Save** to save the pump selection.



Pumps (Continued)

Single Speed Pump Settings: To manually turn the filter pump on or off, tap the Pool Filter Pump button on the second Pool screen (on Home screen). If the heater is on and active, and Heater Cool down feature is enabled; when you tap Pool Filter Pump button to turn off the filter, only the heater will turn off and the pool filter pump will automatically turn off after 5 minutes of heater cool down period. You can override the heater cool down period by tapping the button again to turn off the filter pump.

Dual Speed Pump Settings: Pump Type, Pump Name, Body, and High/Low Speed Circuits. For information about priming the pump.

Pump Type: Displays the current pump type. You can change the pump type if needed.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Check to save the name and return to the previous screen.

Body: Assign the pump to a body of water (pool, spa, or pool/spa [shared equipment dual body of water]).

High Speed Circuits: Select a circuit for the high speed. You can choose up to eight (8) high speed circuits. Tap the High Speed Circuits button. Tap Add Circuit and select an AUX circuit to assign the high speed to. Tap Check to save the circuit and return to the previous screen.

IntelliFlo VS Settings: Pump Type, Name, Address (1-16), Min. Speed (450 RPM), Max. Speed (3450 RPM), Step Size (10-250 RPM), Prime Time (0-5 min.), and Prime Speed (450-3450 RPM).

Pump Type: Displays the current pump type. You can change the pump type if needed.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Check to save the name and return to the previous screen.

Pump Address: Assign the pump address from 1-16.

Minimum Speed (RPM): This is the minimum pump speed but still generating sufficient flow in the pool. The system will not run lower than 450 RPM. The lower you can establish this flow rate the better the energy savings.

Maximum Speed (RPM): This is generally the pump speed required for backwashing the pool filter. The pump will not allow a higher speed of 3450 RPM in order to prevent damage to the pool system.

Step Size: The pump speed step size can be set from 10-250 minutes.

Priming Time (min): The system priming time can be set from 0-5 minutes.

Priming Speed (RPM): The system priming time can be set from 450-3450 RPM.

Speed Circuits: Assign the speeds to the circuits you wish to use.

Affiliated Circuit Settings:

Circuit: The assign circuit to control the pump speed.

Speed (RPM): Assign pump speed from 450 to 3450 for the selected circuit.

Pump Status: Shows the current power usage in Watts, speed, in revolutions per minute (RPM) while the pump is operating.

Pumps (Continued)

IntelliFlo VSF Settings: Pump Type, Name, Address (1-16), Min. Speed (450 RPM), Max. Speed (3450 RPM), Min. Flow (GPM 20 GPM), Max. Flow (140 GPM), Step Size (10 - 250 RPM), and Step Size (1-10 GPM).

Pump Type: Displays the current pump type. You can change the pump type if needed.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Save and return to the previous screen.

Pump Address: Assign the pump address from 1-16.

Minimum Flow (GPM): This is the minimum flow rate speed but still generating sufficient flow in the pool. The IntelliCenter Control System will not run lower than 20 GPM. The lower you can establish this flow rate the better the energy savings.

Maximum Flow (GPM): This is generally the flow rate required for backwashing the pool filter. The pump will not allow a higher flow rate of 140 GPM to prevent damage to the pool system.

Step Size (RPM): The pump speed step size can be set from 10-250 RPM.

Step Size (GPM): The pump flow rate step size can be set from 1-10 GPM.

Speed Circuits: Assign the speeds to the circuits you wish to use.

Affiliated Circuit Settings:

Circuit: The assign circuit to control the pump speed.

Flow (GPM): Assign pump flow rate from 20-140 for the selected circuit.

Speed (RPM): Assign pump speed from 450 to 3450 for the selected circuit.

Pump Status: Shows the current power usage in Watts, flow rate in gallons per minute (GPM) or revolutions per minute (RPM) while the pump is operating.

IntelliFlo VF Settings: Pump Type, Pump Name, Pump Address (1-16), Min. Flow (15 GPM), Max. Flow (134 GPM), and Step Size (1-10 GPM).

Pump Type: Displays the current pump type. You can change the pump type if needed.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Save and return to the previous screen.

Pump Address: Assign the pump address from 1-16.

Minimum Flow (GPM): The pump's minimum flow rate can be set from 15-134. This is the minimum flow rate speed but still generating sufficient flow in the pool. The IntelliCenter™ Control System will not run lower than 15 GPM. The lower you can establish this flow rate the better the energy savings.

Maximum Flow (GPM): The pump's maximum flow rate can be set from 15-134 GPM. This is generally the flow rate required for backwashing the pool filter. The pump will not allow a higher flow rate of 134 in order to prevent damage to the pool system.

Step Size (GPM): The pump flow rate step size can be set from 1-10 GPM.

Affiliated Circuit Settings:

Circuit: The assign circuit to control the pump speed.

Flow (GPM): Assign pump flow rate from 15-134 GPM for the selected circuit.

Pump Status: Shows the current power usage in Watts, flow rate in gallons per minute (GPM) or revolutions per minute (RPM) while the pump is operating.

History

To access the History screen, from the Home screen, click the History tab.

To return to the Home screen, click the Home tab.



Temperature/Usage: Displays history data for Pool, Spa, Solar and Air temperatures.

Chemistry/Feeds: Displays ph and ORP history data.

Jump To Today: Displays history data for the current date.

Current Week: Displays history data for the current week.

Current Month: Displays history data for the current month.

Settings

SETTINGS (see page 5): To access the Settings Menu, click the 3 line icon (top right corner of screen, see page 2) and select Settings. To return to the Home screen, click Manage My Pool.

HOME: Displays the Home screen. See page 2.

LIGHT GROUPS: Setup groups of lights. Manually turn on/off groups of lights from one button on the Home Light screen. See page 8 (Light Groups) and page 20 (Circuits Groups) for more information.

SCHEDULES: Setup daily and weekly schedules for pool/spa filter pump circuits.

VACATION: Setup vacation daily and weekly schedules for pool/spa filter pump circuits.

SYSTEM CONFIGURATION (see page 21):

GENERAL SETTINGS:

Personal Info: User name, and owner name, phone number and email address.

Location: Pool address, city, state, zip code and country. Auto fetch current location using longitude and latitude coordinates, and time zone.

Notifications: Add recipient, manage message types to display. Message Types: Circuits, Pumps, IntelliChlor, IntelliChem®, and Heaters. See page 3.

Advanced Settings: Setup Current date, Time, Clock Mode (12/24 hr.), Clock Source (Manual/Internet), Units (English/Metric), Priority (Manual Op Priority, Vacation Mode (On/Off), Valve Delay (Pump Off During Valve Rotation), Heater Cool Down Delay (Pump On during Heater Cool Down Delay), Calibration air and solar sensor.

Security: Setup system access permission with PIN numbers to system as Administrator or Guest.

CIRCUITS: SETUP AUX circuits for: OCP 0, Feature Circuits (generic/spillway), and Circuits Groups.

BODIES: Configure Pool and Spa capacity (gallons), and Spa Manual Heat On/Off.

CHEMISTRY CONTROL: Assign IntelliChlor® SCG and/or IntelliChem® Controller to body of water (pool/spa). Assign IntelliChem Controller channel (1-16).

OTHER EQUIPMENT: Assign OCP Valves, Heaters, Heater Groups and Pool and spa covers.

PUMPS: Assign pump types and AUX circuits.

REMOTES: Setup spa-side remotes (iS4, iS10, SpaCommand®, QuickTouch®).



MANAGE MY POOL

SETTINGS

MANAGE USERS

MANAGE SYSTEMS

ENABLE/DISABLE SPA-SIDE REMOTES

USERS GUIDE

ABOUT

LOGOUT

Light Groups (Settings) See page 10

Schedules (Settings)

To access the Schedule screen, click the 3 line icon (top right corner of screen, see page 2) and select Settings then Schedules. To return to the Home screen, click Manage My Pool. Also see Vacation on page 20.

Schedule Active: Check this box to enable the programmed schedule.

Add a Schedule: Click Add Program, select an AUX circuit from the list.

Occurrence: Once: Run the schedule one time. Repeats: Repeat the schedule.

Start Time: Set the start time (am/pm) to run the schedule.

Stop Time: Set the stop time (am/pm) for the schedule.

Don't Stop: Run the schedule continuously until manually turned off.

Days To Run: Check the days to run the schedule or click Weekdays, Weekends or Everyday. Click Clear to clear the settings.

Smart Start: Auto start the schedule.

The screenshot shows the 'SCHEDULES' screen in the IntelliCenter Control System web application. At the top, there are navigation tabs: HOME, LIGHT GROUPS, SCHEDULES (selected), VACATION, and SYSTEM CONFIGURATION. Below the tabs, a status message reads: 'VACATION SCHEDULE ACTIVE. YOU MAY ADD, EDIT OR REMOVE PERS BUT THIS SCHEDULE IS NOT CURRENTLY ACTIVE.' The main content area is a form for editing a schedule. It includes a 'SELECT A CIRCUIT' dropdown menu, a 'TIME: 8:00AM - 5:00PM' field, and a 'DAYS: EVERY DAY' field. There are also checkboxes for 'Circuit', 'Smart & Circuit', and 'Schedule Active'. A 'HEAT SET POINT' section is visible with a 'See Heater 1' link. The 'OCCURRENCE' section has radio buttons for 'Once' and 'Repeats'. The 'START TIME' is set to '8:00AM' and the 'STOP TIME' is set to '5:00PM'. The 'DAYS TO RUN' section has checkboxes for Sun, Mon, Tue, Wed, Thu, Fri, and Sat. Below this are buttons for 'WEEKDAYS', 'WEEKENDS', 'EVERY DAY', and 'CLEAR'. At the bottom of the form are 'SAVE' and 'CANCEL' buttons. A footer bar at the very bottom repeats the 'SELECT A CIRCUIT', 'TIME: 8:00AM - 5:00PM', and 'DAYS: EVERY DAY' information.

Vacation (Settings)

To access the Vacation screen, click the 3 line icon (top right corner of screen, see page 2) and select Settings then Vacation. To return to the Home screen, click Manage My Pool. Also see Schedules on page 19.

Vacation Mode: Check the On/Off is box to enable or disable Vacation Mode.

Apply Vacation Schedule Only During the Following Time Frame: Check to enable this feature.

Start/Stop Date: Enter the Vacation Mode start and stop date.

Add Program: Click Add Program, select an AUX circuit from the list.

Circuit Setting: Select an AUX circuit or pool and spa.

Schedule Active: Check this box to enable the programmed schedule.

Occurrence: Once: Run the schedule one time. Repeats: Repeat the schedule.

Start Time: Set the start time (am/pm) to run the schedule.

Stop Time: Set the stop time (am/pm) for the schedule.

Don't Stop: Run the schedule continuously until manually turned off.

Days To Run: Check the days to run the schedule or click Weekdays, Weekends or Everyday. Click Clear to clear the settings.

Smart Start: Auto start the schedule.

The screenshot displays the 'VACATION MODE' settings interface. At the top, there is a green 'ON' toggle for 'VACATION MODE' and a checkbox for 'Apply Vacation Schedule Only During The Following Time Frame'. Below this, 'START DATE' and 'STOP DATE' are both set to '08-29-1917'. The 'CIRCUIT SETTINGS' section shows 'Spa' selected. There are also controls for 'HEAT SET POINT' and 'START TIME' (00:00) and 'STOP TIME' (00:00 PM). At the bottom, there are buttons for 'WEEKDAYS', 'WEEKENDS', 'EVERY DAY', 'SAVE', and 'CANCEL'.

General Settings (System Configuration)

Circuits/Circuits Groups: See page 22

Bodies: See page 24

Chemistry Control: See page 13

Other Equipment: See page 25

Pumps: See page 14

Remotes: See page 27

General Settings

To access the General options, click the 3 line icon (top right corner of screen, see page 2) and select **Settings > System Configuration > General Settings**. To return to the Home screen, click **Manage My Pool**. Also see **Schedules on page 19**.

Personal Info: Enter the pool owner's name, phone number and email.

Location: Enter the pool address, city, state, zip code and country. **FETCH/LAT:** Click this button to populate your current location using longitude and latitude coordinates. **time Zone:** Select your time zone location. **Auto Adjust Time Zone for DST:** Check this box to automatically set Daylight Standard Time.

Notifications: Add recipient name, phone number, and email. Manage message types to display ALL/NONE. Message Types (Click right arrow to select message types: Circuits, Pumps, IntelliChlor, IntelliChem, and Heaters. See page 2.

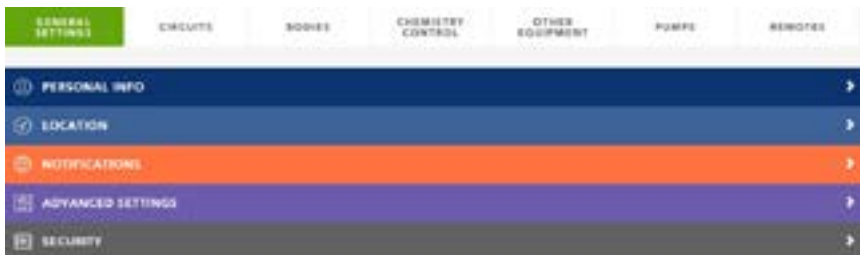
Advanced Settings: Setup Current date, Time, Clock Mode (12/24 hr.), Clock Source (Manual/Internet), Units (English/Metric), **Priority (Manual Op Priority, Vacation Mode (On/Off), Manual Heat, Valve Delay (Pump Off During Valve Rotation), Heater Cool Down Delay (Pump On during Heater Cool Down Delay), Calibration air and solar sensor.**

Security: Check the Security Enable box to enable the security feature. To allow Guests to have local access to the system check the Enable box. Check Show PIN Numbers to display passcode numbers.

Add Role: To add a guest, click Add Role. Select the name from the displayed list of user's (intellicercenter.com).

Guest Permissions: Click the Down arrow to display the system permissions. Select which section(s) of the system that the guest has access to. Click Save to save the guest permissions.

Role: Select the Administrator permissions. Enter the four digit PIN. Enter the time allowed while entering the PIN before the system logs out.



Circuits (System Configuration)

To access the Circuits screen, click the 3 line icon (top right corner of screen, see page 2) and select Settings > System Configuration > Circuits (Feature Circuits and Circuit Groups). To return to the Home screen, click Manage My Pool.

OCP 0 - OCP 0: Displays the IntelliCenter™ Control System AUX circuits detected installed hardware (single body: i5P, i8P, i10P, shard equipment (dual body), i5PS, i8PS, i10PS and i10D). *Note: A Wireless Controller and/or Indoor Control Panel will also be displayed.*

Circuit Name: Enter a Circuit Name from the displayed list of names or enter a different name.

Circuit Type: Click the Down arrow to display the Circuit Types (Functions). Select the function for this circuit. **Circuit Types:** Generic, Spillway, Master Cleaner, Chem Relay, Light, IntelliBrite, GloBrite, GloBrite White, MagicStream, Dimer, ColorCascade and Master Cleaner 2.

Show as Feature (Yes/No): Show assigned Feature Circuits in the Home screen Features screen.

Freeze Protection: Enable/Disable circuit freeze protection.

Egg Timer: Set the Hours, Minutes to run the program. The Egg Timer is a specified time delay (hrs/mins) for the circuit, once it is turned on.

Don't Stop: Select a manual time-out of 0-12 hours for this circuit.

Save: Click Save to save the circuits settings.



Feature Circuits (see page 8)

Circuit Groups

To access the Circuits screen, click the 3 line icon (top right corner of screen, see page 2) and select **Settings > System Configuration > Circuits (Feature Circuits and Circuit Groups)**. To return to the Home screen, click **Manage My Pool**.

Add Circuit Group: Click to assign Circuit Group settings.

Circuit Name: Enter a Circuit Name from the displayed list of names or enter a different name.

Add Circuit (AUX): Click the Down arrow to display the available circuits to add to a group or circuits.

Action: To enable or disable the Group of Circuits, click either Turn On or Turn Off.

Save: Click Save to save the circuits settings.



Bodies (System Configuration)

To access the Bodies screen, click the 3 line icon (top right corner of screen, see page 2) and select Settings > System Configuration > Bodies. To return to the Home screen, click Manage My Pool.

OCP 0 - OCP 0 / Capacity / Spa Manual Heat: Displays the IntelliCenter® Control System AUX circuits detected installed hardware (single body: i5P, i8P, i10P, shared equipment, i5PS, i8PS, i10PS and i10D). *Note: A Wireless Controller and/or Indoor Control Panel will also be displayed.*

Pool: Click Pool to assign the body of water (pool) settings. *Note: Pool and Spa display for shared equipment. For one body of water, only one body of water will display.*

Body Name: Enter a name for the pool body of water.

Capacity: Enter the capacity of the pool body of water.

Shortcut Button:

Save: Click Save to save the circuits settings.

Spa: Click Pool to assign the body of water (pool) settings. *Note: Pool and Spa display for shared equipment. For one body of water, only one body of water will display.*

Body Name: Enter a name for the spa body of water.

Capacity: Enter the capacity of the spa body of water.

Spa Manual Heat: Check this box to enable Spa Manual Heat. Example: When the Spa pump button (or from the Spa-Side remote, or Wireless Controller) is manually turned on, the pump will turn on and the heater and the spa will begin to heat even if the heater is set to OFF. This feature allows you to program the pool pump to filter daily with the heater set to off, and then be ready to heat whenever the Spa button is pressed. Heat Enabled is switched on by default.

Shortcut Button: Click the Down arrow to display the available AUX circuits. Select the On/Off AUX circuits to display on the Home screen.

Save: Click Save to save the settings.

The screenshot displays two configuration panels for 'Bodies' in the IntelliCenter Control System web application. The top panel is for a 'POOL - POOL' with a capacity of 39,800 GAL and 'SPA MANUAL HEAT' set to 'N/A'. Below the header, there is a 'Body Name' field containing 'Pool' and a 'Capacity' field containing '20000'. A grid of 'Shortcut Button' controls is visible, with 'AUX1' selected. A 'SAVE' button is at the bottom right of this panel. The bottom panel is for a 'SPA - SPA' with a capacity of 5,800 GAL and 'SPA MANUAL HEAT' set to 'OFF'. It has a 'Body Name' field containing 'Spa' and a 'Capacity' field containing '8000'. A 'Spa Manual Heat' checkbox is present and unchecked. A similar grid of 'Shortcut Button' controls is shown, with 'AUX1' selected. A 'SAVE' button is at the bottom right of this panel.

Chemistry (System Configuration) See page 11

Other Equipment (System Configuration)

To access the Other Equipment screen, click the 3 line icon (top right corner of screen, see page 2) and select Settings > System Configuration > Other Equipment. To return to the Home screen, click Manage My Pool.

VALVES:

OCP 0 - Valves: Click to assign the valve type. *Note: Displays the IntelliCenter® Control System valve assignment for the detected installed hardware (single body: i5P, i8P, i10P, shard equipment, i5PS, i8PS, i10PS and i10D).*

Return (1): Enter a Valve Name from the displayed list of names or enter a different name.

Type: *Standard* is the default valve type.

Circuit Pool: *Pool* is assigned for the Return Valve (1).

Circuit Spa: *Spa* is assigned for the Return Valve (1).

Intake (1): *Standard* is the default valve type.

Circuit Pool: *Pool* is assigned for the Return Valve (1).

Circuit Spa: *Spa* is assigned for the Return Valve (1).

Save: Click Save to save the circuits settings.

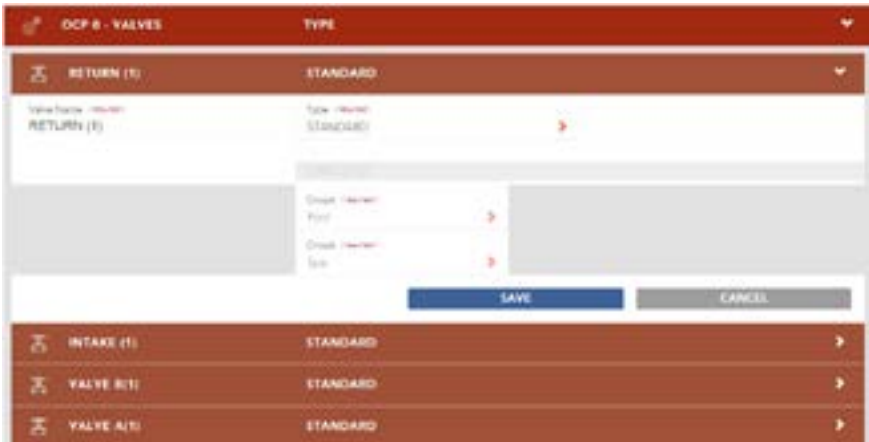
Optional Personality Card: *Note: Displays the optional IntelliCenter™ Control System valve assignment for the detected installed hardware (single body: i5P, i8P, i10P, shard equipment (dual body), i5PS, i8PS, i10PS and i10D).*

Valve B (1) - Valve A (1): Enter a name for the optional Valve B (1), Valve A (1) from the displayed list of names or enter a different name.

Type: *Standard* is the default valve type.

Circuit Type: is Select an AUX circuit for Valve B (1) and Valve A (1).

Save: Click Save to save the settings.



Other Equipment (System Configuration)

HEATERS:

Add Heater: Assign the heater to a body of water.

Heater Name: Enter a name for the heater or select a name from the displayed list.

Type: *Standard* is the default valve type.

Body: Assign the heater to a body of water (pool default)

Save: Click Save to save the settings.

HEATERS	TYPE	BODY
SOLAR HEATER 1 Name: Solar Heater 1 Start Time/Date:	Type: Solar Start Time/Date:	Body: Pool <input type="checkbox"/> Radiant Cooling
GAS HEATER 1 Name: Gas Heater 1	Type: Gas Heater	Body: Pool

ADD HEATER REMOVE HEATERS

Pumps (System Configuration) See page 14

Remotes (System Configuration)

To access the Other Equipment screen, click the 3 line icon (top right corner of screen, see page 2) and select **Settings > System Configuration > Remotes**. To return to the Home screen, click **Manage My Pool**.

Add Remote: Remote Name: Enter a name for the remote or select a name from the displayed list.

Type: Select the spa-side remote from the list (iS4, iS10, SpaCommand®, QuickTouch®). Assign the displayed remote buttons.

Body / Select a Body: Select either Pool or Spa.

Pool Control / Select a Pump: Select a pump from the list (Filter Pump).

Active: Check this box to enable the remote.

Button / Select a Circuit: Assign each button to an AUX circuit.

Save: Click Save to save the settings.

GENERAL SETTINGS	CIRCUITS	BODIES	CHEMISTRY CONTROL	OTHER EQUIPMENT	PUMPS	REMOTES								
<table border="1"> <thead> <tr> <th>REMOTES</th> <th>TYPE</th> <th>ADDRESS</th> <th>ACTIVE</th> </tr> </thead> <tbody> <tr> <td>iS4 Remote 128</td> <td>iS4</td> <td></td> <td>YES</td> </tr> </tbody> </table>							REMOTES	TYPE	ADDRESS	ACTIVE	iS4 Remote 128	iS4		YES
REMOTES	TYPE	ADDRESS	ACTIVE											
iS4 Remote 128	iS4		YES											
<p>Remote Name: iS4 Remote 128 Type: iS4</p> <p>Body: Pool</p> <p>Button 1: AUX1 Button 2: AUX2 Button 3: AUX3 Button 4: AUX4</p> <p>SAVE CANCEL</p>														
<table border="1"> <tbody> <tr> <td>iS4 Remote 128</td> <td>iS4</td> <td></td> <td>YES</td> </tr> </tbody> </table>							iS4 Remote 128	iS4		YES				
iS4 Remote 128	iS4		YES											
ADD REMOTE			REMOVE REMOTE(S)											

Accept Invitation

Please enter the password you would like to use

1. Administrator logs into IntelliCenter®
2. Selects the “hamburger” drop down menu icon in the top right (ideally we could insert a pic of this in this sentence)
3. Choose the “Manage Users” selection
4. Same
5. same

Existing Account

I already have an account - I want to attach this pool system to my existing account.”

Click ATTACH and is succesful Has been successfully attached to the My Property system. My Property the property name? Maybe we should list this info:

Has been successfully attached to the following Pool system:

Edgard Rodriguez 123 Sunny Happy Place Moorpark, CA 93021

Click OPEN to connect to IntelliCenter.com

Invitation Has Expired

To resend the invite, please ask the Pentair IntelliCenter® pool/spa control system Administrator to generate a new invitation.





1620 HAWKINS AVE., SANFORD, NC 27330 • (919) 566-8000
10951 WEST LOS ANGELES AVE., MOORPARK, CA 93021 • (805) 553-5000
WWW.POOL.COM

All indicated Pentair trademarks and logos are property of Pentair Inc. or its global affiliates in the U.S.A. and/or other countries. Third party registered and unregistered trademarks and logos are the property of their respective owners

© 2021 Pentair Inc.. All rights reserved. This document is subject to change without notice.



P/N 523351 Rev. A 4/2021



INTELLICENTER™ CONTROL SYSTEM WIRELESS REMOTE



INSTALLATION GUIDE

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

Contents

Warning and Safety Instructions	iii-v
IntelliCenter Control System Wireless Remote	1
Charging the IntelliCenter Control System Wireless Remote	2
IntelliCenter Control System Wireless Remote Home Screen Battery Icon	3
IntelliCenter Control System Wireless Remote Wireless Transceiver Installation	4
IntelliCenter Control System Wireless Remote Kit	4
Mounting the Wireless Remote Transceiver Module	4
Connecting the Transceiver Module to the IntelliCenter Control System Load Center	6
IntelliCenter Control System Wireless Remote Connection Diagram	8
IntelliCenter Control System Wireless Remote Setup	9
Power On the IntelliCenter Control System Load Center	9
Configure the Wireless Remote	9
Wireless Remote Firmware Update	10
IntelliCenter Control System Menu	11

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

READ AND FOLLOW ALL WARNING AND SAFETY INSTRUCTIONS

⚠ DANGER SERIOUS BODILY INJURY OR DEATH CAN RESULT IF THIS PRODUCT IS NOT INSTALLED AND USED CORRECTLY.

⚠ DANGER INSTALLERS, POOL OPERATORS AND POOL OWNERS MUST READ THESE WARNINGS AND ALL INSTRUCTIONS BEFORE USING THIS PRODUCT. This Guide provides installation and operation instructions for the product. Consult Pentair Water Pool and Spa, Inc. (“Pentair”) with any questions regarding this product.

⚠ WARNING This product is intended for use with swimming pool applications only.

⚠ WARNING Most states and local codes regulate the construction, installation, and operation of public pools and spas, and the construction of residential pools and spas. It is important to comply with these codes, many of which directly regulate the installation and use of this product. Consult your local building and health codes for more information.



This guide provides installation and operation instructions for the IntelliCenter™ Control System Wireless Remote. Consult Pentair Water Pool and Spa, Inc. with any questions regarding this equipment (see “Customer Service/Technical Support”, page iv).



Attention Installer: This guide contains important information about the installation, operation and safe usage of this product. Give this guide to the owner and/or operator of this equipment after installation.

Attention User: This manual contains important information that will help you in operating and maintaining this filter. Please save it for future reference.

⚠ WARNING **Attention User:** This Guide contains important information that will help you in operating and maintaining this product. Please retain it for future reference. Read the entire Installation Guide and all related warning labels before installing this product. Read the operating instructions and warnings for all equipment in the pool circulating system before operating. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of this Guide or replacement safety labels.

This product is designed and manufactured for safe and reliable service when installed, operated and maintained according to the information and installation codes referred to in this Guide.



This is a safety alert symbol. When you see this symbol in this manual or on the product, look for one of the following signal words; **DANGER, WARNING, CAUTION** and **NOTICE** and comply with the information. Be alert to the potential hazard. Ensure to read and comply with all of the warnings and cautions in this manual.

NOTICE



Risk of Electrical Shock or Electrocution!

⚠ DANGER



- Always disconnect power at the circuit breaker before servicing the load center. Improper installation can create an electrical shock hazard that can result in death or serious injury.

This product must be installed by a licensed or certified electrician or a qualified pool professional in accordance with the current National Electrical Code (NEC), NFPA 70 or the Canadian Electrical Code (CEC), CSA C22.1. All applicable local installation codes and ordinances must also be adhered to. Improper installation will create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock, and may also cause damage to

property. Always disconnect the power to the pool light at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to serviceman, pool users or others due to electrical shock.

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

⚠ DANGER



Water temperature in excess of 100° F (37.7° C) may be hazardous to your health. Prolonged immersion in hot water may induce hyperthermia. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above normal body temperature of 98.6° F (37° C.). Effects of hyperthermia include: (1) Unawareness of impending danger. (2) Failure to perceive heat. (3) Failure to recognize the need to leave the spa. (4) Physical inability to exit the spa. (5) Fetal damage in pregnant women. (6) Unconsciousness resulting in danger of drowning. The use of alcohol, drugs, or medication can greatly increase the risk of fatal hyperthermia in hot tubs and spas.

⚠ WARNING

A pool or spa pump must be installed by a qualified pool and spa service professional in accordance with the current National Electrical Code and all applicable local codes and ordinances. Improper installation may create an electrical hazard which could result in death or serious injury to pool users, installers, or others due to electrical shock, and may also cause damage to property.

⚠ WARNING

The use of alcohol, drugs, or medication can greatly increase the risk of fatal hyperthermia in hot tubs and spas. This product is intended to control heaters with built-in high limit circuits **ONLY**. Failure to do so may cause property damage or personal injury.

⚠ WARNING

For units intended for use in other than single-family dwellings, a clearly labeled emergency switch shall be provided as part of the installation. The switch shall be readily accessible to the occupants and shall be installed at least five (5) feet (1.52 m) away, adjacent to, and within sight of, the unit.

⚠ WARNING

Except for listed spa-side remote controls, install a minimum of five (5) feet (1.52 m) from the inside wall of the pool and spa.

For information about the Virginia Graeme Baker Pool and Spa Safety Act, contact the Consumer Product Safety Commission at (301) 504-7908 or visit www.cpsc.gov.

NOTE: Always turn off all power to the pool pump before installing the cover or working on any suction outlet.

Two Speed Pump Controls Notice (Title 20 Compliance)

Please read the following important Safety Instructions - When using two-speed pumps manufactured on or after January 1, 2008, the pump's default circulation speed **MUST** be set to the **LOWEST SPEED**, with a high speed override capability being for a temporary period not to exceed one normal cycle, or two hours, whichever is less.



CAUTION: IMPORTANT INTELLICENTER™ CONTROL SYSTEM WIRELESS REMOTE BATTERY INFORMATION

- Danger of explosion if battery is incorrectly replaced.
- **ONLY USE** a Pentair Water Pool and Spa ("Pentair") replacement battery. Order Battery (P/N 522054).
- Rechargeable Lithium-ion battery disposal: Unwanted lithium ion battery pack may be returned to your local recycling center or the manufacturer for disposal.

RF Exposure Requirements: The antenna(s) used for this device must be installed to provide a separation distance of at least 7.0 inches (20 cm) from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. L'antenne (s) utilisé pour cet appareil doit être installé pour fournir une distance de séparation d'au moins (20 cm) à partir de toutes les personnes et ne doit pas être co-localisés ou fonctionner en conjonction avec une autre antenne ou un autre émetteur.

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

FCC Standard: 47 CFR Part 15, Subpart C (Section 15.247). This version is limited to chapter 1 to chapter 11 by specified firmware controlled in the U.S.A.

FCC non-modification statement:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC RF Exposure requirements:

Notice for Virtual Cable (FCC ID: P4H-ICVC & IC: 4249A-ICVC): In order to comply with FCC/IC RF Exposure requirements, a minimum separation distance of 8 in (20 cm) must be maintained between the equipment and all persons during normal operation.

Notice for Wireless Remote Control (FCC ID: P4H-ICHNDHLD & IC: 4249A-ICHNDHLD):

This portable transmitter with its antenna has shown compliance with FCC/IC SAR limits for general population / uncontrolled exposure. The maximum listed SAR level is 0.88 W/kg (body). The antenna used for this device must not be co-located or operating in conjunction with any other antenna or transmitter.

Avis concernant la télécommande sans fil (ID FCC: P4H-ICHNDHLD & IC: 4249A-ICHNDHLD):

Cet émetteur portable avec son antenne a montré une conformité avec les limites SAR de la FCC / IC pour l'exposition de la population générale / non contrôlée. Le niveau SAR maximal indiqué est de 0,88 W / kg (corps). L'antenne utilisée pour cet appareil ne doit pas être co-localisée ou utilisée conjointement avec une autre antenne ou un autre émetteur.

Canada - Industry Canada (IC): The IntelliCenter™ Control System and the Wireless Remote complies with RSS210 of Industry Canada. (1999). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The device complies with industry Canada's License Exempt RSSs. Operation is subject to the following: (1) This device may not cause interference; and (2) This device must accept interference that may cause undesired operation of the device.

Le dispositif est conforme à la licence d'Industrie Canada Exempt CNR. Le fonctionnement est soumis à la suivante.

(1) Ce ne doit pas provoquer d'interférences ; et (2) Cet appareil doit accepter les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. The term "IC" before the certification / registration number only signifies that the Industry Canada technical specifications were met.


Instruction to user: The IntelliCenter Control System and the Wireless Remote has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. The IntelliCenter Control System and the Wireless Remote generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by switching the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note: The user is cautioned that changes and modifications made to the IntelliCenter Control System and IntelliChlor device without the approval of the manufacturer could void the user's authority to operate this equipment.

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

General Installation Information

1. All work must be performed by a licensed electrician, and must conform to all national, state, and local codes.
2. Install to provide drainage of compartment for electrical components.
3. If this system is used to control underwater lighting fixtures, a ground-fault interrupter (GFCI) must be provided for these fixtures. Conductors on the load side of the ground-fault circuit-interrupter shall not occupy conduit, junction boxes or enclosures containing other conductors unless such conductors are also protected by a ground-fault circuit-interrupter. Refer to local codes for details.
4. A terminal bar stamped  is located inside the supply terminal box. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying this equipment (no smaller than 12 AWG or 3.3 mm). The bonding lug(s) provided on this unit are intended to connect a minimum of one No. 8 AWG for US installation and two No. 6 AWG for Canadian installations solid copper conductor between this unit and any metal equipment, metal enclosures or electrical equipment, metal water pipe, or conduit within 5 feet (1.5 m) of the unit.
5. The electrical supply for this product must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with in accordance with the current National Electrical Code (NEC), NFPA 70 or the Canadian Electrical Code (CEC), CSA C22.1. All applicable local installation codes and ordinances must also be adhered to. The disconnecting means must be readily accessible to the tub occupant but installed at least 10 ft. (3.05 m) from the inside wall of the pool.

CUSTOMER SERVICE / TECHNICAL SUPPORT

Customer Service
8 AM to 8 PM

Phone: (800) 831-7133

Fax: (800) 284-4151

Visit www.pentair.com

Technical Support

Sanford, North Carolina (8 AM to 8 PM ET)

Phone: (919) 566-8000

Fax: (919) 566-8920

Moorpark, California (8 AM to 5 PM PT)

Phone: (805) 553-5000

Fax: (805) 553-5515

IntelliCenter™ Control System Wireless Remote

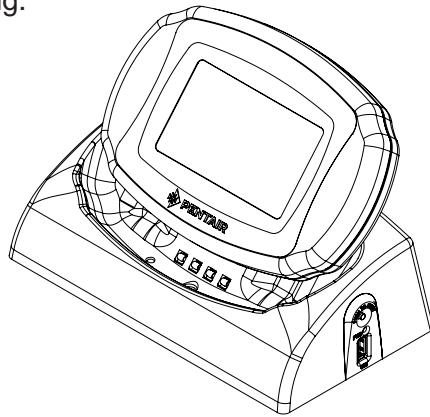
This guide contains all of the information you need to setup and operate the IntelliCenter Control System Wireless Remote.

The Wireless Remote provides the same functionality as the IntelliCenter Control System Indoor and Outdoor Control Panel. The operating range of the Wireless Remote is approximately 300 ft. from the wireless transceiver antenna (line of sight) which is typically located near the load center. The optimum wireless transmit and receive range may be affected by physical obstructions, (especially those containing metal), weather conditions, and geographical features.

The Wireless Remote LCD screen can be sensitive to sunlight. When exposed for extended periods the LCD screen will heat up and go black. If this happens, place the remote in a shaded area and allow the screen to cool down. Do not attempt to adjust the contrast or the screen will be unreadable when it eventually cools. When used outside, keep the remote covered or in a shaded area. Prolonged exposure to sunlight may permanently damage the unit.

⚠ WARNING! Do not plug in the AC adapter to a power source within five (5) feet of the pool and spa. Canadian installations require a minimum of (3) meters from pool water. Do not recharge outdoors. Only use Pentair approved AC power adapter transformer.

The Wireless Remote is water resistant and can be exposed to temporary splashing or wet hands. However, the controller is not intended to be submersed. Remove unit immediately if it is dropped in the water or exposed to rain. Store the unit indoors in a dry environment. Be sure the gold charging contacts are dry before charging.



Wireless Remote in Cradle

Wireless Remote Kit (P/N 520036) Contents

- Wireless Remote
- AC/DC power adapter
- Cradle
- Installation Guide (this manual)

Charging the IntelliCenter™ Control System Wireless Remote

When you are not using the IntelliCenter Wireless Remote, place it in its cradle to recharge the battery. This allows the battery to be fully charged at all times.

To Charge the Wireless Remote battery

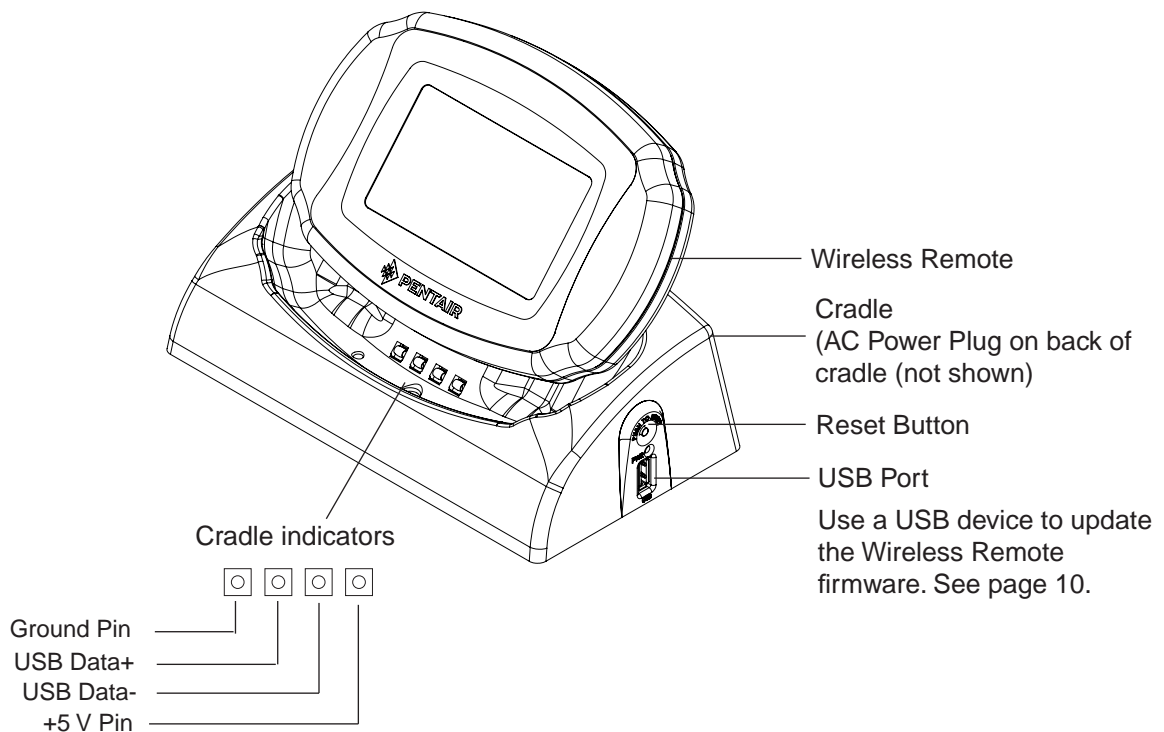
- Plug the AC adapter into an AC wall outlet.
- Insert the AC Power Adapter plug into the bottom of the cradle.
- Place the Wireless Remote in the cradle.
- Look for the battery charging indicator on the front of the cradle (see below).

Note: When the Wireless Remote is placed in the cradle the display and backlight will be on. After five minutes the backlight will shut off. The Wireless Remote unit and display are always on when seated in the cradle. To turn the backlight on, tap on the screen.

To use the Wireless Remote:

1. Remove the Wireless Remote from the cradle. Note: The Wireless Remote can be used while seated in the cradle with the AC power connected to the cradle.
2. Tap the Wireless Remote touch screen to turn the unit on. The main screen is displayed. The LCD backlight will turn off in two minutes if not in use. The battery icon displays three solid bars, only when it's fully charged.

Note: The device can be used all day at full power with a complete battery charge (3 to 4 hours). If the Wireless Remote is not being used for extended periods of time disconnect the AC power Adapter from the power source.

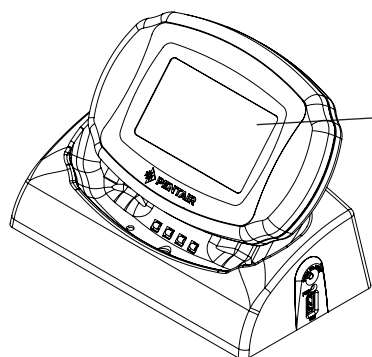
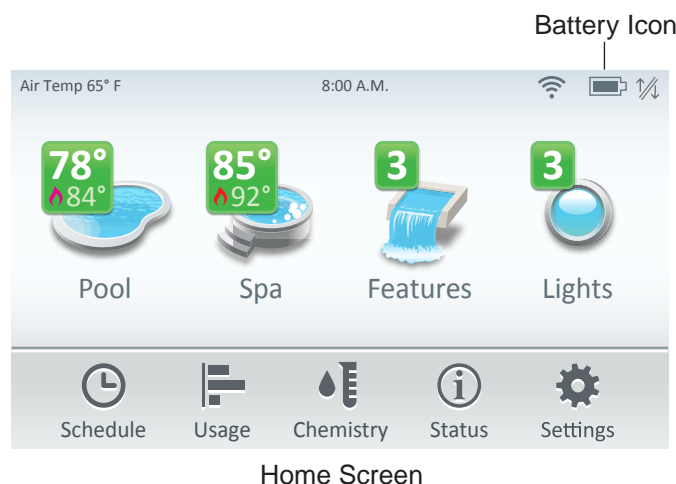


IntelliCenter™ Control System Wireless Remote Home Screen Battery Icon

The Wireless Remote battery icon is located in the upper right corner of the Home screen. If the battery icon displays one or no bars or the screen is blank, this may indicate that the battery cannot power the device and needs recharging.

A complete battery charge takes about 3 to 4 hours. During battery recharge, the battery icon bars scroll from left to right. When the battery is fully charged the left to right scrolling of the battery icon will stop. The battery icon will be solid when the battery is fully charged.

Note: If the battery requires replacement, only use Pentair replacement battery (P/N 522054).



Battery Icon



Three solid bars indicate ample battery charge. During battery recharge, bars scroll left to right.



Sufficient charge left in the batteries to operate device.



Batteries will deplete soon.

Screen Settings

To access the screen settings, from the Home screen, tap Settings > Advanced System Configuration > General > Day/Night Theme,

Back Light: Brightness Level: Adjust the screen brightness level from 33 to 100%.

Dimness Level: Adjust the contrast level from 10 to 100%.

Dim Display (min): While in other screens, sets the time to return to the Home screen (from 0 to 240 minutes (20 hrs)).

Turn Off Display (min): Set the time to turn off the screen from 0 to 240 minutes (20 hrs). Note: The time set to turn off the screen also affects the start time of the Deep Sleep feature, see below for details.

Battery Conservation Mode (Deep Sleep): Tap Deep Sleep Mode to turn on this feature. The default setting is ON. This feature allows you to save the battery life while the wireless remote is in its cradle. Deep Sleep (Hr): Deep Sleep time can be set from 1 to 3 hours (Default 3 hrs.). Select when you want the device to go to sleep to conserve battery life.

IntelliCenter™ Control System Wireless Remote Transceiver Installation

The following procedure describes how to install the Transceiver module and connect the Transceiver cable to the COM port on the IntelliCenter Control System main circuit board.

NOTE: USING MULTIPLE WIRELESS REMOTES: When using multiple wireless remotes, be sure the Transceiver for each of these controllers are located at least 6 ft. apart for each other. This will avoid digital interference and ensure better wireless reception.

IntelliCenter Control System Wireless Remote Kit

The Wireless Remote Kit consists of:


- Wireless Remote
- Wireless Transceiver
- Transceiver module Installation Instructions (P/N 522056)
- Four plastic anchors and retaining screws (to mount the transceiver module)

Mounting the Wireless Remote Transceiver Module

The Wireless Remote Transceiver module is connected to the IntelliCenter Control System via the RS-485 port. The Transceiver is connected to the Wireless Remote via a 2.4GHz RF connection. Mount the Transceiver module at a convenient location (on a flat vertical surface) near the Load Center, at a minimum of 5 ft. above ground level to optimize the functional operating range of the Wireless Remote.

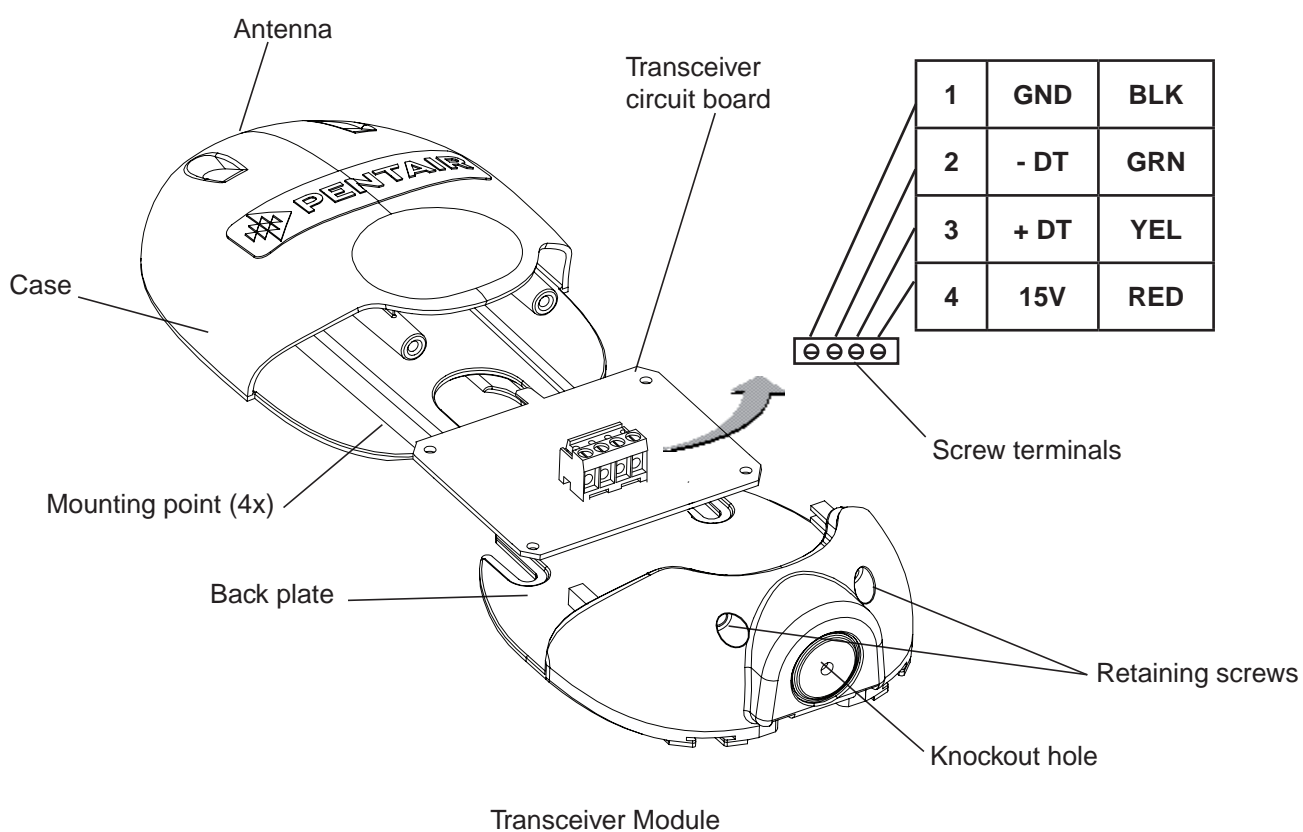
Note: To avoid signal interference, mount the Transceiver antenna a minimum of 10 ft. away from the Load Center or Power Center, any metal surface/structure, or air blower located in the immediate area of the equipment pad.

To mount the transceiver near the IntelliCenter Control System Load Center:

1. **Switch OFF the main power off to the IntelliCenter Control System Load Center.**
2. Remove the two retaining screws securing the transceiver case to the back plate. Carefully slide the case off the back plate.
3.  **CAUTION - Electrostatic Discharge (ESD): Hold the circuit board from the edges. Do not touch the board components, electrostatic discharge can damage the board.** Slide the transceiver circuit board up and out of the back plate.
4. Position the back plate against the mounting surface so that the case is oriented in an upright position (with the antenna pointing upwards). Use a pencil to mark the four mounting points. Drill four 3/16 in. diameter holes into the mounting surface. If screws are not being used, insert the four plastic wall anchors (provided in the kit).
5. Feed the provided 10 ft. of UL approved four 22 AWG conductor cable through the knockout hole at the bottom of the enclosure. Do not run wire through the load center drain holes. If the knockout hole is not being used to run wire through, drill a hole through the bottom of the back plate, route the wire through the hole and seal it using a fitting with a few feet of conduit or some other sealant between the case and the cable.

Mounting the Wireless Remote Transceiver (Continued)

6. Position the back plate over the mounting points and secure it with the four mounting screws (provided in the kit).
7. Carefully slide the transceiver circuit board into the back plate.
8. Strip the leads of the communication cable wires back $\frac{1}{4}$ in. Insert the wires into the connector screw terminals (provided in the kit). Using a small flat-blade screwdriver, secure the wires with the terminal screws. Make sure to match the color-coding of the wires: GND = Black, Green = -DT, Yellow = +DT, and Red = +15. Connect the screw terminal connector onto the transceiver circuit board.
9. Slide the case over the back plate. Secure the case to the back plate using the two retaining screws.
10. Proceed to the page 6.



Connecting the Transceiver Module to the IntelliCenter™ Control System Load Center



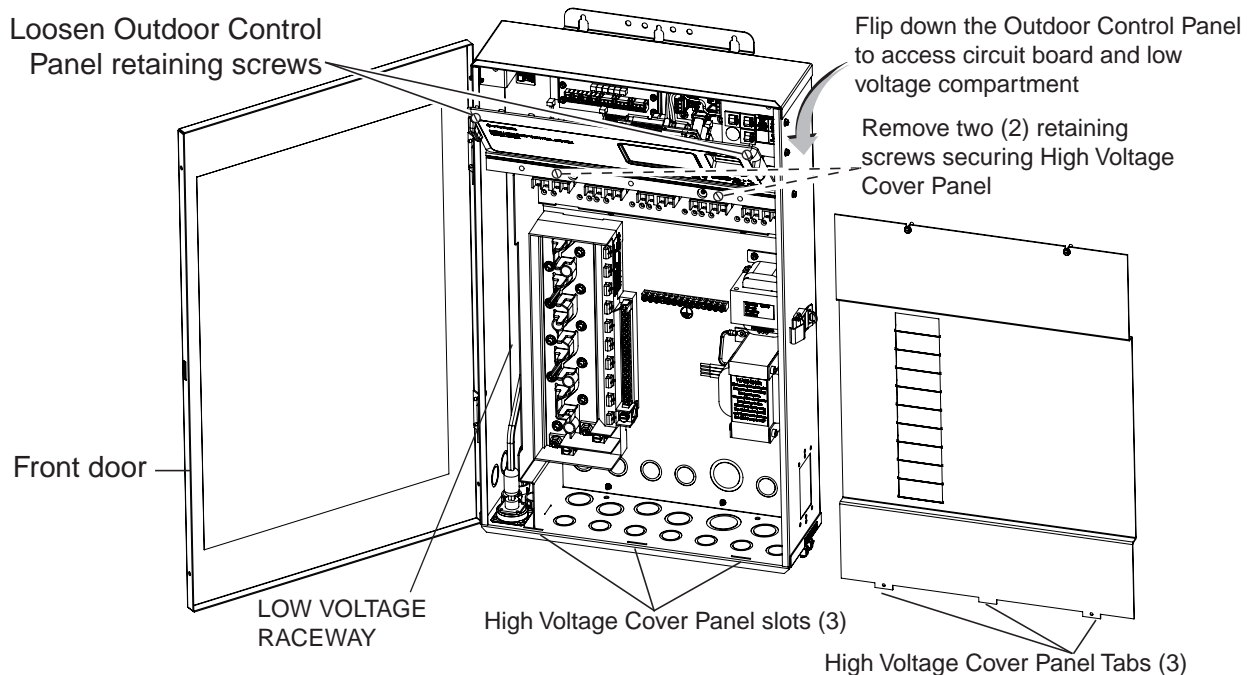
WARNING SWITCH OFF AC POWER TO THE INTELLICENTER CONTROL SYSTEM LOAD CENTER BEFORE MAKING ANY CONNECTIONS.

To connect the Transceiver wires to the COM port on the system circuit board:



BEFORE REMOVING THE HIGH VOLTAGE COVER PANEL FROM THE LOAD CENTER OR POWER CENTER ENCLOSURE SWITCH OFF THE POWER AT THE HOUSE MAIN CIRCUIT BREAKER BOX.

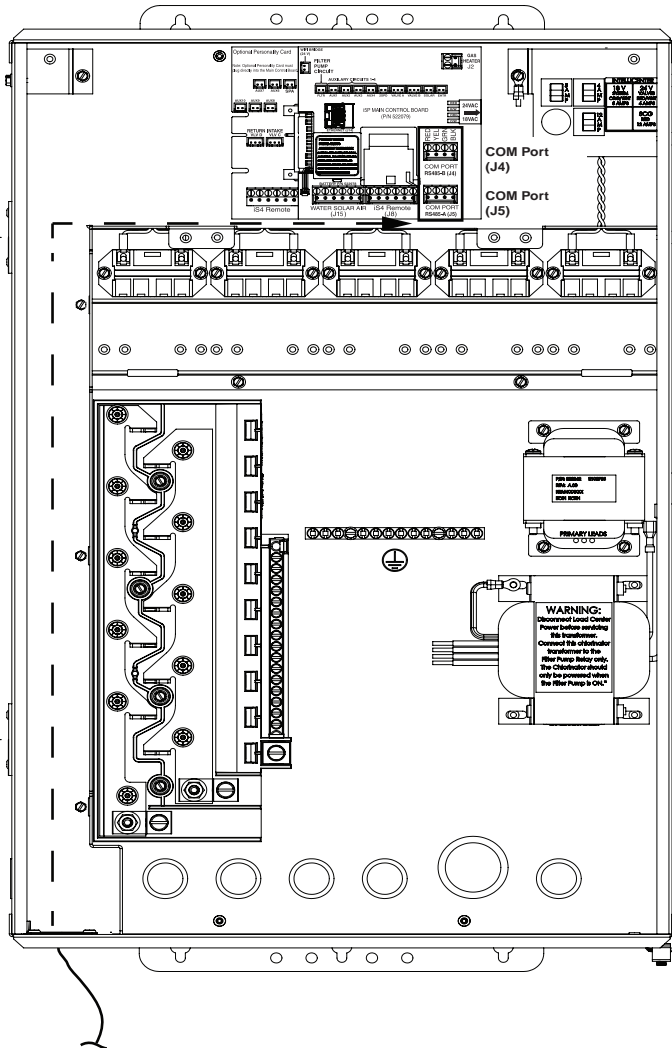
1. Switch OFF AC power to the enclosure at the main house panel circuit breaker.
2. Unlatch the front door latch and open the front door. Remove the two retaining screws from the High Voltage Cover Panel and remove the panel.
3. Loosen the two retaining screws securing from the top edge of the IntelliCenter™ Control System Outdoor Control Panel. Fold down the Outdoor Control Panel to access the circuit board sockets connectors for the electrical connections. Remove the panel from the enclosure (see illustration below).
4. Route the four conductor transceiver connection cable into the lower plastic grommet, up through the **low voltage raceway** to the system circuit board.



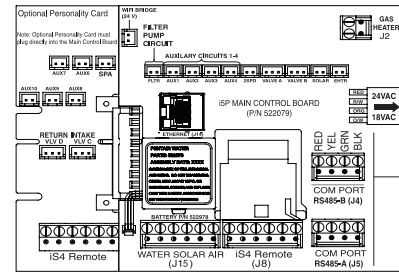
IntelliCenter™ Control System Load Center (front view)
(High Voltage Cover Panel Removed)

(Continued)

- Strip the leads of the communication cable wires back ¼ in. Insert the wires into the connector screw terminals (provided in the kit). Using a small flat-blade screwdriver, secure the wires with the COM PORT terminal screws. Make sure to match the color-coding of the wires: GND = Black, Green = -DT, Yellow = +DT, and Red = +15. Connect the screw terminal connector onto the transceiver circuit board.



IntelliCenter Control System Main Board

i5PS IntelliCenter Control System Main Circuit Board
(with optional Expansion Board shown)**COMMUNICATION PORTS A & B 14 VDC, 2.0A Max. Combined.**

IntelliCenter™ Control System COM PORT:

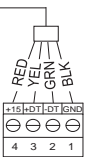
Strip 1/4" insulation from the green and yellow wire conductors.

• Connect the Green wire to pin 2 on Connector J4 or J5.

• Connect the Yellow wire to pin 3 on Connector J4 or J5.

Note: Multiple wires may be inserted into a single terminal.

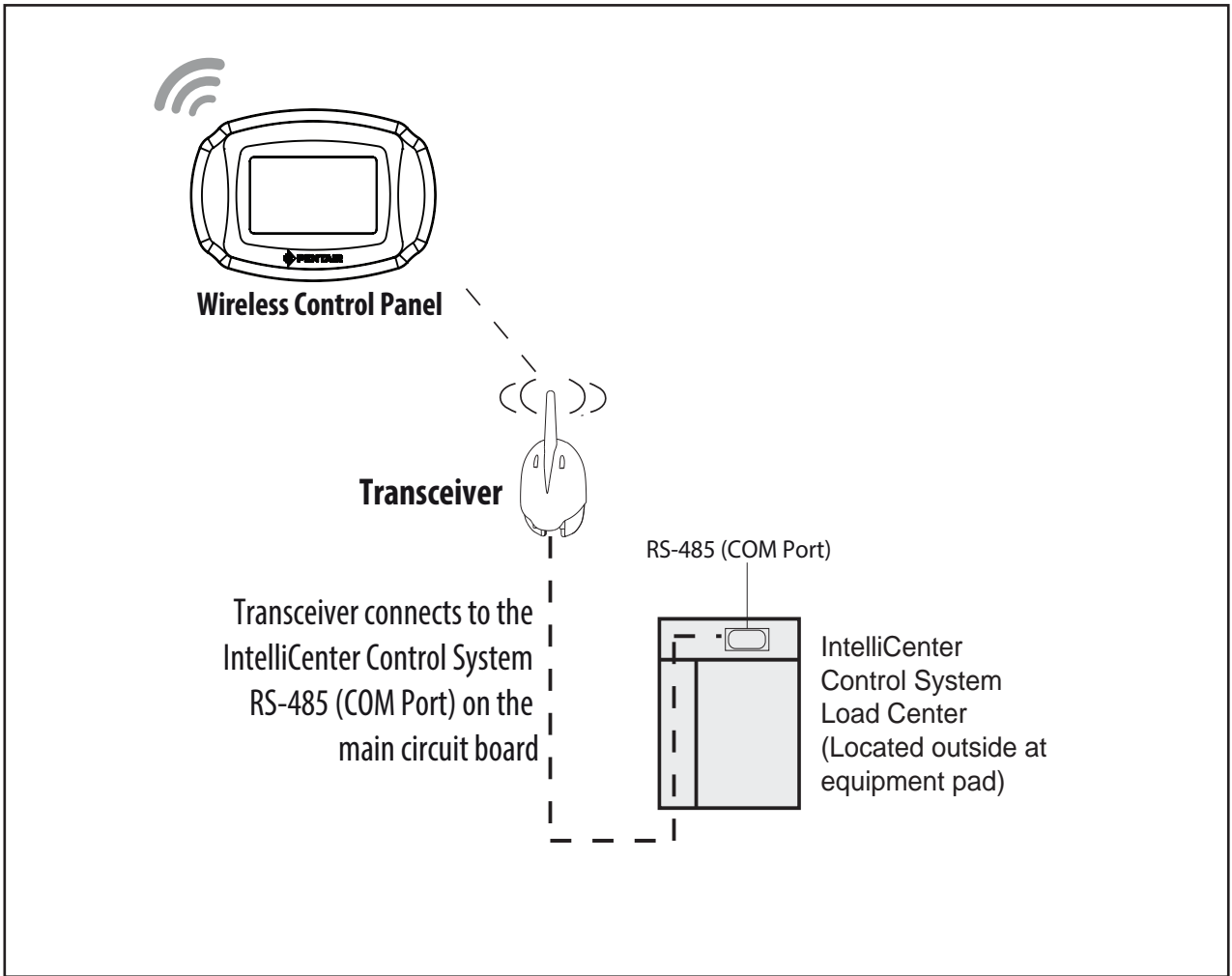
Optional: COM PORT expansion module (P/N 520818) with 3 extra COM PORTS up to 2 modules can be installed.

COM Port A (J5)
and COM Port B (J4)
14 VDC, 2.0A Max.
Combined

Connect
Transceiver cable to
RS_485 COM port (J4 or J5)

- Reinstall the High Voltage Panel: Insert the panel's three tabs into the lower slots on the enclosure. Secure the panel with the two (2) retaining screws. Close the front door and secure with the latch.
- After the Load Center is powered up the Wireless Remote will automatically synchronize with the system and will be ready for operation.
- Close the Load Center front door. Fasten the spring latch.
- SWITCH ON AC POWER to the Load Center.

IntelliCenter™ Control System Wireless Remote Connection Diagram



IntelliCenter™ Control System Wireless Remote Setup

The Wireless Remote requires optional Kit P/N 522036. This kit includes a wireless transceiver with antenna which connects to an RS-485 COM port on the IntelliCenter Control System Outdoor Control Panel circuit board located in the load center. For IntelliCenter Control System start up information, refer to the IntelliCenter Control System User's Guide (P/N 522561).

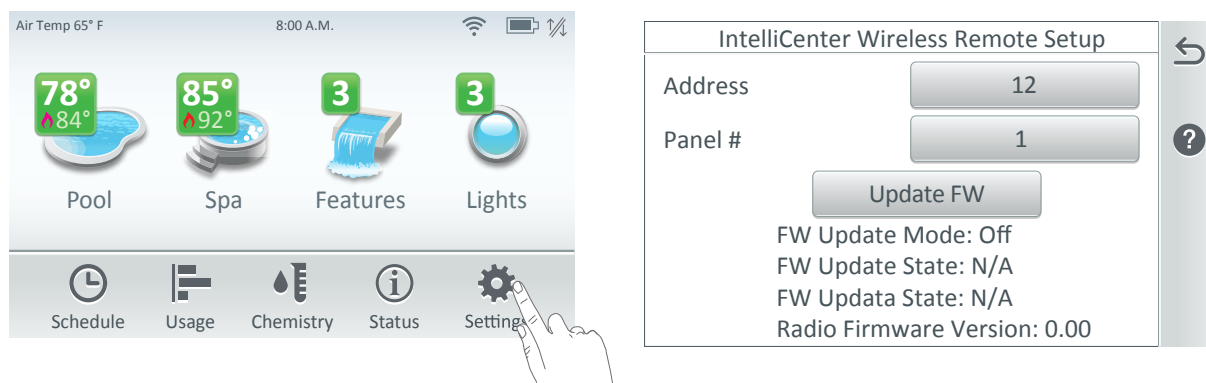
Note: IntelliCenter Control System settings made on the Outdoor and Indoor Control Panels and the Wireless Remote are synchronized to have the same system settings.

Power On the IntelliCenter™ Control System Load Center

1. After all the necessary pool and spa equipment has been connected to the Load Center, replace and secure the High Voltage Panel onto the front of the Load Center.
2. Switch on the main circuit breakers to apply power to the Load Center.

Configure the Wireless Remote

1. From the Home screen on the Wireless Remote. Tap **Settings > Advanced System Configuration > IntelliCenter Wireless Remote Setup** to access the Wireless Remote Setup Screen.



2. From the Wireless Remote Setup screen, select an Address and Panel for the Wireless Control Panel.

Address Button: This button displays the current wireless address being used. Choose an address that has the best signal strength.

Select Wireless Channel	
<input checked="" type="radio"/> 12	<input type="radio"/> 13
<input type="radio"/> 14	<input type="radio"/> 15
<input type="radio"/> 16	<input type="radio"/> 17
<input type="radio"/> 18	<input type="radio"/> 19
<input type="radio"/> 20	<input type="radio"/> 21

✓ For most operations address 23 is the default address. If you should need to change the address, tap the Address button to access the Select Wireless Channel screen and select a different channel from 12 through 25. The unique wireless address communicates to the wireless transceiver located at the IntelliCenter Control System load center.

✗ **Panel #:** Tap this button to select which Wireless Panel to transmit from. Select either Wireless Panel #1 or Wireless Panel #2.

Update FW: Tap Update FW to update the firmware. Tap Abort FW Update to abort the update.

Radio Firmware Mode: Displays the current firmware version of the wireless remote.

Continue to next page.

IntelliCenter™ Wireless Remote Firmware Update

The Wireless Remote current firmware can be updated using the USB port.

Update the Current Wireless Remote Firmware

1. Insert a USB device in the USB port on the IntelliCenter Control System Outdoor, Indoor Control Panel or the Wireless Remote.
2. From the Home screen on the Wireless Remote. Tap **Settings > Advanced System Configuration > System** to access the System screen.
3. Tap **Firmware Update** to open the Firmware Update screen, then tap **Update From USB**.



Check for Update: Tap this button to check for the latest IntelliCenter Control System firmware version. Follow the screen prompts.

Firmware Update: Tap this button to display the Firmware Update screen. This screen displays the current IntelliCenter Control System firmware version.

Update from USB: Insert the USB device into the Outdoor Control Panel, Indoor Control Panel, or Wireless Remote. Tap the **Update From USB** button to display the Select Firmware File for Update screen. Using the Up/Down arrows, locate the Update file (.pfw). Tap the file name to begin the update. Follow the screen prompts.

4. **Update the System Firmware:** Place the Wireless Remote in the cradle. Insert the USB device into the Wireless Remote cradle. The USB device will be detected. The latest firmware will be copied onto the Wireless Remote. To view the firmware version, from the Home screen, tap **Settings > Advanced System Configuration > System** to view the Firmware version displayed on the System Information button.

IntelliCenter™ Control System Menu

Home Screen

- Pool Screen
- Spa Screen
- Features (Individual/Groups)
- Lights ((Individual/Groups)
- Schedule (Pump schedule)
- Usage
- Chemistry (IntelliChem//IntelliChlor)
- Status

Settings

- Service Mode
- Vacation Mode
- Support

General: Location, Date & Time, Units (Fahrenheit/Celsius), Features and Lights List Order, General List Order, Backlight (Deep Sleep: Wireless Remote only, Temperature Sensor Calibration, Day / Night Themes, Manual Operation Priority, Manual Heat, Chemistry Readings Badge, Badge Colors.

Alerts and Notifications: Choose which system status, alerts and warnings badges to display on the Home screen Status icon.

Security: (Passcode Protect)

Pentair User Portal: (intellicer.com)

Groups: Configure groups of AUX circuits, Light circuits and Feature circuits.

System Reboot: Reboot the panel

Advanced System Configuration

Installation Setup:

Body Configuration, Circuits, Pumps, Heaters, Valves, Chemistry, Pool/Spa Cover.

Remotes Setup: iS4, QuickTouch II, iS10, SpaCommand remotes

Network and WiFi Setup: Configure Ethernet, Connect to a Wireless Network, Adjust Wireless Transmit Power, Internet Connection Test, Reboot WiFi Device.

IntelliCenter Wireless Remote Setup: Configure the Address and Panel # for wireless remote.

Delays: Valve Delay, Heater Cool Down, Freeze Cycle Time (min), Spa Freeze, Override (min), Override Delays.

System: System Information, Detected Hardware, System Diagnostic Information, Firmware Update (Update from Panel, Update from USB, Update from Ethernet), Factory Diagnostics.

Import/Export: Import System Configuration, Export System Configuration.

Restore Factory Defaults: Restore system to factory configuration.

Setup Wizard: Step-by-step system configuration.

Notes

Notes



1620 HAWKINS AVE., SANFORD, NC 27330 • (919) 566-8000
10951 WEST LOS ANGELES AVE., MOORPARK, CA 93021 • (805) 553-5000

www.pentair.com

All Pentair trademarks and logos are owned by Pentair or by one of its global affiliates. IntelliCenter™ is a trademark of Pentair Water Pool and Spa, Inc. and/or its affiliated companies in the United States and/or other countries. Unless expressly noted, names and brands of third parties that may be used in this document are not used to indicate an affiliation or endorsement between the owners of these names and brands and Pentair Water Pool and Spa, Inc. Those names and brands may be the trademarks or registered trademarks of those third parties. Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice. Pentair is an equal opportunity employer.

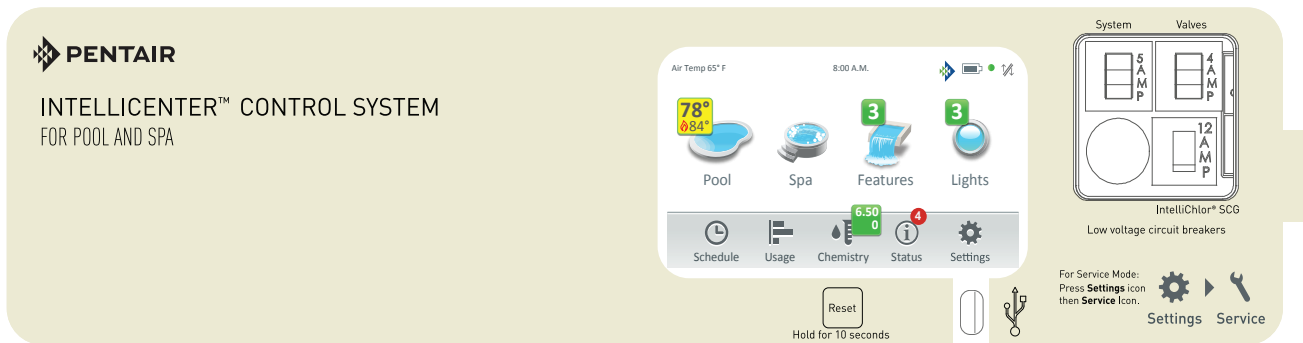
© 2018 Pentair Water Pool and Spa, Inc. All rights reserved. This document is subject to change without notice.



P/N 523213 Rev B 9/2018



INTELLICENTER™ CONTROL SYSTEM FOR POOL AND SPA



INSTALLATION GUIDE

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

READ AND FOLLOW ALL WARNING AND SAFETY INSTRUCTIONS

⚠ DANGER SERIOUS BODILY INJURY OR DEATH CAN RESULT IF THIS PRODUCT (UNIT) IS NOT INSTALLED AND USED CORRECTLY.

⚠ DANGER INSTALLERS, POOL OPERATORS AND POOL OWNERS MUST READ THESE WARNINGS AND ALL INSTRUCTIONS BEFORE USING THIS PRODUCT. This Guide provides installation and operation instructions for the product. Consult Pentair Water Pool and Spa, Inc. (“Pentair”) with any questions regarding this product.

⚠ WARNING This product is intended for use in swimming pool applications only.

⚠ WARNING Most states and local codes regulate the construction, installation, and operation of public pools and spas, and the construction of residential pools and spas. It is important to comply with these codes, many of which directly regulate the installation and use of this product. Consult your local building and health codes for more information.



This guide provides installation and operation instructions for the IntelliCenter™ Control System. Consult Pentair Water Pool and Spa, Inc. with any questions regarding this equipment (see “Customer Service/Technical Support”, page ii).



Attention Installer: This guide contains important information about the installation, operation and safe usage of this product. Give this guide to the owner and/or operator of this equipment after installation.

⚠ WARNING **Attention User:** This manual contains important information that will help you in operating and maintaining this filter. Please save it for future reference.

Attention User: This Guide contains important information that will help you in operating and maintaining this product. Please retain it for future reference. Read the entire Installation Guide and all related warning labels before installing this product or attempting to use, service or adjust the IntelliCenter™ Control System. Read the operating instructions and warnings for all equipment in the pool circulating system before operating. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of this Guide or replacement safety labels.

This product is designed and manufactured for safe and reliable service when installed, operated and maintained according to the information and installation codes referred to in this Guide.



This is a safety alert symbol. When you see this symbol in this manual or on the product, look for one of the following signal words; **DANGER, WARNING, CAUTION** and **NOTICE** and comply with the information. Be alert to the potential hazard. Ensure to read and comply with all of the warnings and cautions in this manual.

NOTICE



⚠ DANGER



Risk of Electrical Shock or Electrocution!

- Always disconnect power at the circuit breaker before servicing the load center. Improper installation can create an electrical shock hazard that can result in death or serious injury.

This product must be installed by a licensed or certified electrician or a qualified pool professional in accordance with the current National Electrical Code (NEC), NFPA 70 or the Canadian Electrical Code (CEC), CSA C22.1. All applicable local installation codes and ordinances must also be adhered to. Improper installation will create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock, and may also cause damage to

property. Always disconnect the power to the pool light at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to serviceman, pool users or others due to electrical shock.

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

⚠ DANGER



Water temperature in excess of 100° F (37.7° C) may be hazardous to your health. Prolonged immersion in hot water may induce hyperthermia. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above normal body temperature of 98.6° F (37° C.). Effects of hyperthermia include: (1) Unawareness of impending danger. (2) Failure to perceive heat. (3) Failure to recognize the need to leave the spa. (4) Physical inability to exit the spa. (5) Fetal damage in pregnant women. (6) Unconsciousness resulting in danger of drowning. The use of alcohol, drugs, or medication can greatly increase the risk of fatal hyperthermia in hot tubs and spas.

⚠ WARNING

A pool or spa pump must be installed by a qualified pool and spa service professional in accordance with the current National Electrical Code and all applicable local codes and ordinances. Improper installation may create an electrical hazard which could result in death or serious injury to pool users, installers, or others due to electrical shock, and may also cause damage to property.

⚠ WARNING

The use of alcohol, drugs, or medication can greatly increase the risk of fatal hyperthermia in hot tubs and spas. This product is intended to control heaters with built-in high limit circuits **ONLY**. Failure to do so may cause property damage or personal injury.

⚠ WARNING

Do not use this product to control an automatic pool cover. Swimmers may become entrapped underneath the cover.

⚠ WARNING

For units intended for use in other than single-family dwellings, a clearly labeled emergency switch shall be provided as part of the installation. The switch shall be readily accessible to the occupants and shall be installed at least five (5) feet (1.52 m) away, adjacent to, and within sight of, the unit.

⚠ WARNING

Except for listed spa-side remote controls, install a minimum of five (5) feet (1.52 m) from the inside wall of the pool and spa.

⚠ WARNING

The electrical supply for this product must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with the current National Electrical Code (NEC), NFPA 70 or the Canadian Electrical Code (CEC), CSA C22.1. All applicable local installation codes and ordinances must also be adhered to. The disconnecting means must be readily accessible to the tub occupant but installed at least five 5ft. (1.52 m), (Canada 3 m (9.75 ft) from the inside wall of the pool.

⚠ WARNING

Use only copper supply conductor's rated for 60C/75C sized based on ampacity to support all loads (refer to NEC tables). Load center input supply to be protected by 150 Amp Maximum, 240 VAC Main Circuit Breaker.

For information about the Virginia Graeme Baker Pool and Spa Safety Act, contact the Consumer Product Safety Commission at (301) 504-7908 or visit www.cpsc.gov.

NOTE: Always turn off all power to the pool pump before installing the cover or working on any suction outlet.

Two Speed Pump Controls Notice (Title 20 Compliance)

Please read the following important Safety Instructions - When using two-speed pumps manufactured on or after January 1, 2008, the pump's default circulation speed **MUST** be set to the **LOWEST SPEED**, with a high speed override capability being for a temporary period not to exceed one normal cycle, or two hours, whichever is less.

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

FCC Standard - 47 CFR Part 15, Subpart C (Section 15.247). This version is limited to chapter 1 to chapter 11 by specified firmware controlled in the U.S.A.

Notice: In order to comply with FCC RF Exposure requirements, a minimum separation distance of 8 in (20 cm) must be maintained between the equipment and all persons during normal operation.

Canada - Industry Canada (IC) - The IntelliCenter® Control System and IntelliChlor® SCG device complies with RSS210 of Industry Canada. (1999). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The device complies with industry Canada's License Exempt RSSs. Operation is subject to the following: (1) This device may not cause interference; and (2) This device must accept interference that may cause undesired operation of the device.


Le dispositif est conforme à la licence d'Industrie Canada Exempt CNR. Le fonctionnement est soumis à la suivante. (1) Ce ne doit pas provoquer d'interférences ; et (2) Cet appareil doit accepter les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. The term "IC" before the certification / registration number only signifies that the Industry Canada technical specifications were met.

Instruction to user - The IntelliCenter Control System and IntelliChlor SCG device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. The IntelliCenter Control System and IntelliChlor SCG product device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by switching the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

General Installation Information

1. All work must be performed by a licensed electrician, and must conform to all national, state, and local codes.
2. Install to provide drainage of compartment for electrical components.
3. If this system is used to control underwater lighting fixtures, a ground-fault interrupter (GFCI) must be provided for these fixtures. Conductors on the load side of the ground-fault circuit-interrupter shall not occupy conduit, junction boxes or enclosures containing other conductors unless such conductors are also protected by a ground-fault circuit-interrupter. Refer to local codes for details.
4. A terminal bar stamped  is located inside the supply terminal box. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying this equipment (no smaller than 12 AWG or 3.3 mm). The bonding lug(s) provided on this unit are intended to connect a minimum of one No. 8 AWG for US installation and two No. 6 AWG for Canadian installations solid copper conductor between this unit and any metal equipment, metal enclosures or electrical equipment, metal water pipe, or conduit within 5 feet (1.5 m) of the unit.
5. The electrical supply for this product must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with in accordance with the current National Electrical Code (NEC), NFPA 70 or the Canadian Electrical Code (CEC), CSA C22.1. All applicable local installation codes and ordinances must also be adhered to. The disconnecting means must be readily accessible to the tub occupant but installed at least 10 ft. (3.05 m) from the inside wall of the pool.
6. **GAS HEATER:** This automation control system is designed to supply high voltage (120 VAC / 240 VAC) to a gas heater and override the thermostat in the heater's control circuit. This automation control system is intended to control gas heaters with a high temperature limit switch(s) safety circuit.

Pentair Water Pool and Spa IMPORTANT SAFETY INSTRUCTIONS

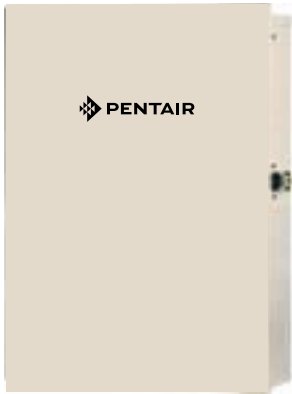
For Installation of Electrical Controls at Equipment Pad (ON/OFF Switches, Timers, and Automation Control Systems)

WARNING



Install all electrical controls at equipment pad, such as on/off switches, timers, and control systems, etc. to allow the operation (start-up, shut-down, or servicing) of any pump or filter so the user does not place any portion of his/her body over or near the pump strainer lid, filter lid or valve closures. This installation should allow the user enough space to stand clear of the filter and pump during system start-up, shut down or servicing of the system filter.

CAUTION



CAUTION! INSTALL POWER CENTER TO ALLOW USER ENOUGH SPACE TO STAND CLEAR OF PUMP AND FILTER WHEN SERVICING.

WARNING



HAZARDOUS PRESSURE: STAND CLEAR OF PUMP AND FILTER DURING START-UP

Qualifications for Installers and Users

This product must be installed by a qualified pool technician in accordance with all applicable local codes and ordinances. It must be serviced by someone who fully understands its operation. Improper installation or servicing could result in death or serious injury to pool users, installers, servicers, or others and may also cause damage to property.

If you are not familiar with your pool filtering system and/or heater, do NOT attempt to adjust or service without consulting your dealer or a qualified pool technician.

Do not permit children to use this product.

Contents

IMPORTANT WARNING AND SAFETY INSTRUCTIONS	i
General Installation Information	iii
Section 1: IntelliCenter Control System and IntelliCenter PC 5P Control System Overview.....	1
Load Center and Power Center Installation Overview	2
Load Center with built-in sub panel	3
Power Center without built-in sub panel	4
Preparing the Load Center and Power Center Enclosure	7
Mounting the Load Center and Power Center.....	8
Load Center Conduit Knockout Locations.....	9
Power Center Conduit Knockout Locations.....	9
Installing Conduit and Conductors to the Enclosure	11
Electrical Wiring High Voltage Connections	12
Main AC Power Connection (Load Center Circuit Breaker Sub panel)	12
Grounding and Bonding Connections	12
Circuit Breakers (Load Center with sub panel)	12
Load Center and Power Center High Voltage Connections	13
GFCI and GFCB Connections	13
Rewiring the IntelliCenter Control System Transformer for 240VAC	13-14
Accessing the IntelliCenter Control System Circuit Boards and Electronics.....	15
Connecting IntelliCenter Control System Load Center Relays	16
Installing Valve Actuators	18-20
Installing IntelliValve Valve Actuator.....	21-25
Installing the Water Temperature Sensor	26
Installing the Ambient Air Temperature Sensor (for freeze protection).....	26
Installing the Solar Temperature Sensor (Optional)	27
Temperature vs. Resistance Data	28
Connecting a Standard Gas Heater to the Load Center	29
Connecting an IntelliFlo Pump to the Load Center	30
Connecting a Pentair UltraTemp Heat Pump to the Load Center.....	31
Connecting a Pentair Hybrid Heat Pump to the Load Center	31
Connecting the IntelliChlor (SCG) Power Cord to the Enclosure	32
Connecting the IntelliChlor (SCG) Communication Cable to a COM Port	33
Connecting a Salt Chlorine Generator to the Load Center or Power Center	34
Wiring Description (Hayward or Jandy Load Center COM Port)	34
Wiring the IntelliChem Controller to the Load Center	34
Wiring the IntelliChlor SCG Transformer to Load Center Filter Pump Relay.....	35
Rewiring the IntelliChlor SCG Transformer for 120VAC	37

Contents (continued)

Section 2: IntelliCenter Control System Start Up.....	39
System Start-Up.....	39
Power on the Load Center and or Power Center	39
Start the Setup Wizard	39
IntelliCenter Control System Menu	49
IntelliCenter Control System Test (Actuators/Pumps/Solar).....	50
Installing the Outdoor Control Panel in the Load Center or Power Center	52
IntelliCenter Control System Personality Boards	53
IntelliCenter Control System Outdoor Control Panels.....	54
IntelliCenter Control System Load Center Wiring Diagram.....	55
IntelliCenter Control System Power Center Wiring Diagram.....	56
IntelliCenter Control System Wireless Connections Diagram	57
IntelliCenter Control System Personality Cards	58
IntelliCenter Control System Kits	60
IntelliCenter Control System Components.....	61
Load Center or Power Center	61
IntelliCenter Control System Personality Kit Descriptions	61
IntelliCenter Control System Expansion Kits	62
Optional IntelliCenter Control System Expansion Enclosure	62
IntelliCenter Control System Personality Kit Contents	63
Optional IntelliCenter Control System Kit Contents	63
IntelliCenter Control System Upgrade Kits.....	63
IntelliCenter Control System Replacement Parts List.....	64
IntelliCenter Control System Accessory Equipment	64
IntelliCenter Control System Configurations and Models	65
Troubleshooting - Error Messages/Error Codes	66-77
Plumbing Requirements.....	78
Equipment Location	79
Over-The-Air (OTA) Firmware Updates	81
Glossary	84

CUSTOMER SERVICE / TECHNICAL SUPPORT

Customer Service
8 AM to 8 P M —
Phone: (800) 831-7133
Fax: (800) 284-4151
Visit www.pentair.com

Technical Support
Sanford, North Carolina (8 AM to 8 PM ET)
Phone: (919) 566-8000
Fax: (919) 566-8920
Moorpark, California (8 AM to 5 PM PT)
Phone: (805) 553-5000
Fax: (805) 553-5515

IntelliCenter® and IntelliCenter® PC 5P Control System Overview

Welcome! Your Pentair IntelliCenter Control System will change the way you view pool and spa controls. This innovation in pool and spa automation offers complete freedom for you while having full automation control over your pool, spa, lights, heater, cleaners and much more. You can now schedule multiple start and stop times to control your lights, heater, spa jets, and filter pumps. The historical usage data feature provides a convenient way to help you conserve energy. Using an iPhone®, iPad® mobile digital device or an Android® wireless device, you can now control your pool and spa from anywhere inside or outside your home. The IntelliCenter Control System is a scalable system that can be used with popular home automation systems.

IntelliCenter Control System Models

- **IntelliCenter Control System:** Load Center (with breaker base) and/or Power Center (without breaker base)
- **IntelliCenter PC 5P Control System:** Power Center (without breaker base)

Note: Functionality is the same for both IntelliCenter Control Systems models.

Note: References in this manual to the IntelliCenter Power Center applies to both IntelliCenter models.

Features

- 4" x 3" capacitive touch sensitive color touch screen.
- Day Time and Night Time color screen modes
- Multifunction Schedules/Programs
- Adjustable schedule timer for easy system scheduling
- 100 Schedules/Programs
- 32 Feature Circuits: Allow additional speeds on a variable speed pump or an actuator to be assigned without using an existing auxiliary circuit.
- 16 Groups: Assign groups of lighting and AUX circuits to be controlled by a single button
- Supports up to 16 IntelliFlo® VF and VS Pumps
- Supports up to four Spa Command® and iS10 Spa Side Remotes, and two iS4 and one QuickTouch® II Wireless Spa Side Remotes
- Supports up to two Indoor Control Panels
- Supports IntelliBrite® LED Color lights
- Valves: Intake/Return plus A and B valve circuits. Expandable up to 10 valves (shared equipment).
- Indoor Control Panel, Wireless Hand-Held Remote, Outdoor Control Panel
- IntelliChem® Controller: Supports one per body.
- IntelliChlor® Salt Chlorine Generator: Supports one per body
- MasterTemp, Max-E-Therm and ETi250 support for RS-485 connected heater feature
- 40 Auxiliary Circuits (up to three Expansion Enclosures)
- Spa Manual Heat Function
- Support for two Bodies of Water
- Supports multiple heater connection capability (starting from software release v1.047)
- Over-The-Air Software Updates: See page 84. (starting from software release v1.047 - 2.xx)
- Spa Side Control Enable/Disable
- Solar Heating Option/Support
- 16 Heat Pump Support: Heat Pump Cooling Support.
- Real Time Clock
- Assignable Circuit Names and Custom Circuit Names
- Special Circuit Types/Function
- Two Speed Pump Support
- English/Metric Support
- Sensor Calibration
- Passcode Protection
- USB port for use with a standard flash drive. Save the system's configuration and upgrade the system's firmware
- WiFi Wireless Connection: Supports wireless Internet connection for remote system control

Note: See page 63 for IntelliCenter and IntelliCenter PC 5P Control Systems models, part numbers, and replacement kits.

Note: See page 69 for IntelliCenter Control System Troubleshooting Error Messages and Error Codes for heaters, pumps, IntelliChem and IntelliChlor.

Section 2

IntelliCenter® Control System Installation Overview

 **WARNING**

RISK OF ELECTRICAL SHOCK. BEFORE REMOVING THE HIGH VOLTAGE COVER PANEL FROM THE ENCLOSURE SWITCH OFF THE MAIN POWER AT THE HOME AT THE MAIN CIRCUIT BREAKER BOX.

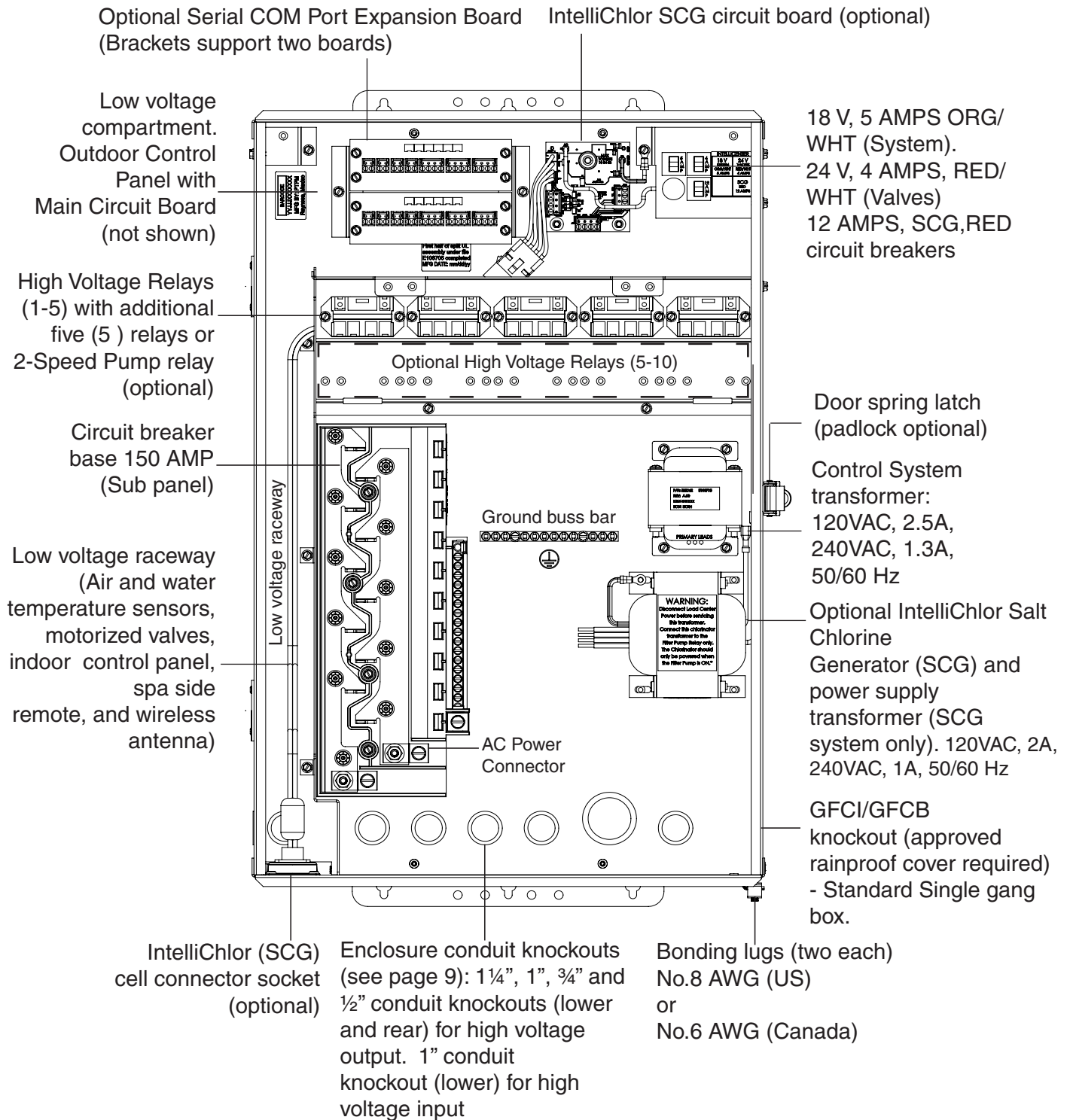
This manual describes how to install, configure and operate the IntelliCenter Control System. Please take time to read through this manual to familiarize yourself with the IntelliCenter Control System.

Please read the following guidelines carefully:

- The IntelliCenter Control System Load Center and/or Power Center must be installed at the equipment pad.
- AC power for the Load Center must be provided from the main circuit breaker panel located at the house.
- All electrical equipment, except for UL Listed spa-side remote switches, must be installed no less than five (5) feet (1.5 m), (Canada, 3 m (9.75 ft) from pool and/or spa, and comply with all national, state, and local codes (UL Listed spa-side remote switches may be installed at near waterline).
- Install the Load Center no less than five (5) feet (1.5 m) from pool, spa, and hot tub. Additionally, the installation shall allow the user enough space to stand clear of the filter and pump during system start-up, as explained on page vi.
- The TYPE 3R “Rainproof” enclosure can be mounted outside or inside of a pool equipment shed or other enclosure.
- Before choosing the final location for the enclosure, consider the length of all of the conductors that will have to be connected to the enclosure. Make sure to consider cable lengths for the sensors to the Load Center location. The air temperature sensor cable is three (3) feet (91.44 cm) long and the water temperature sensor cable is 25 feet (7.62 m) long.
- **RS-485 recommended cable length and AWG:** Use a UL approved #23 to #18 AWG (#22 AWG recommended) four conductor cable to the Load Center or Power Center. The preferred wire color scheme is: Red, Yellow, Green, and Black. The maximum recommended cable length is 2,000 ft (607 m). Maximum total length is 4,000 ft (1200 m).
- Mount the Load Center on a flat vertical surface so the conduit knockouts are located at the bottom of the enclosure. Upper and lower brackets are provided to mount the enclosure.
- DO NOT mount the enclosure horizontally. Water can enter the conduit knockouts and cause damage to the system and an electrical shock hazard. Install with conduit knockouts down.
- Consider the Load Center location when routing conduit carrying the AC power to the Load Center, and the conduit that will be run to the high voltage equipment.
- Install the Load Center so that drainage is provided for all electrical components.
- Motors should be listed for pool and spa applications and have built-in thermal protection.

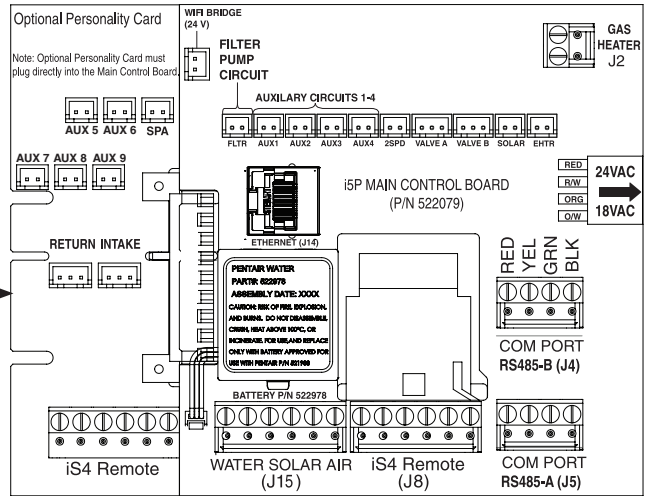
IntelliCenter® Control System Load Center (with built-in sub panel)

The IntelliCenter Control System load center should be installed at the equipment pad. The AC power to the load center is provided from the main-panel circuit breaker located at the house.

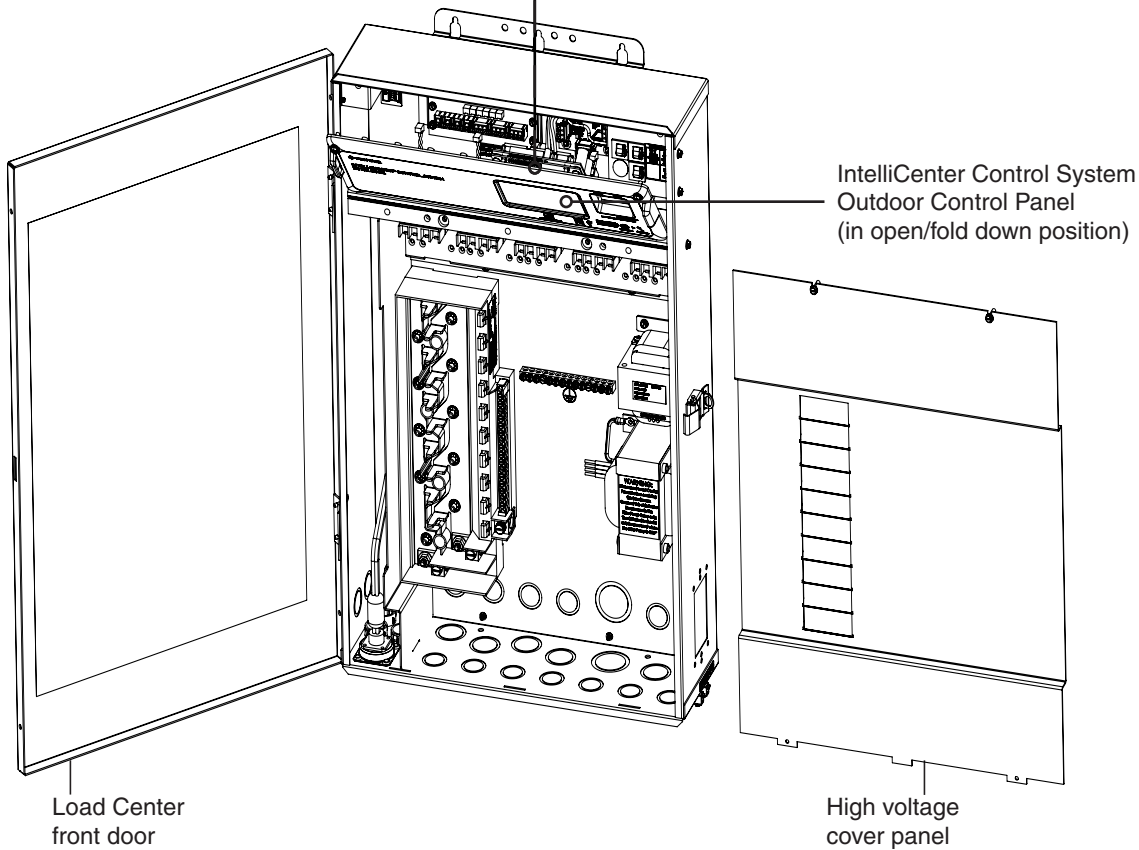


IntelliCenter Control System Load Center
(26" H x 17" W x 5¼" D)

IntelliCenter® Control System Load Center (with built in sub panel) Continued



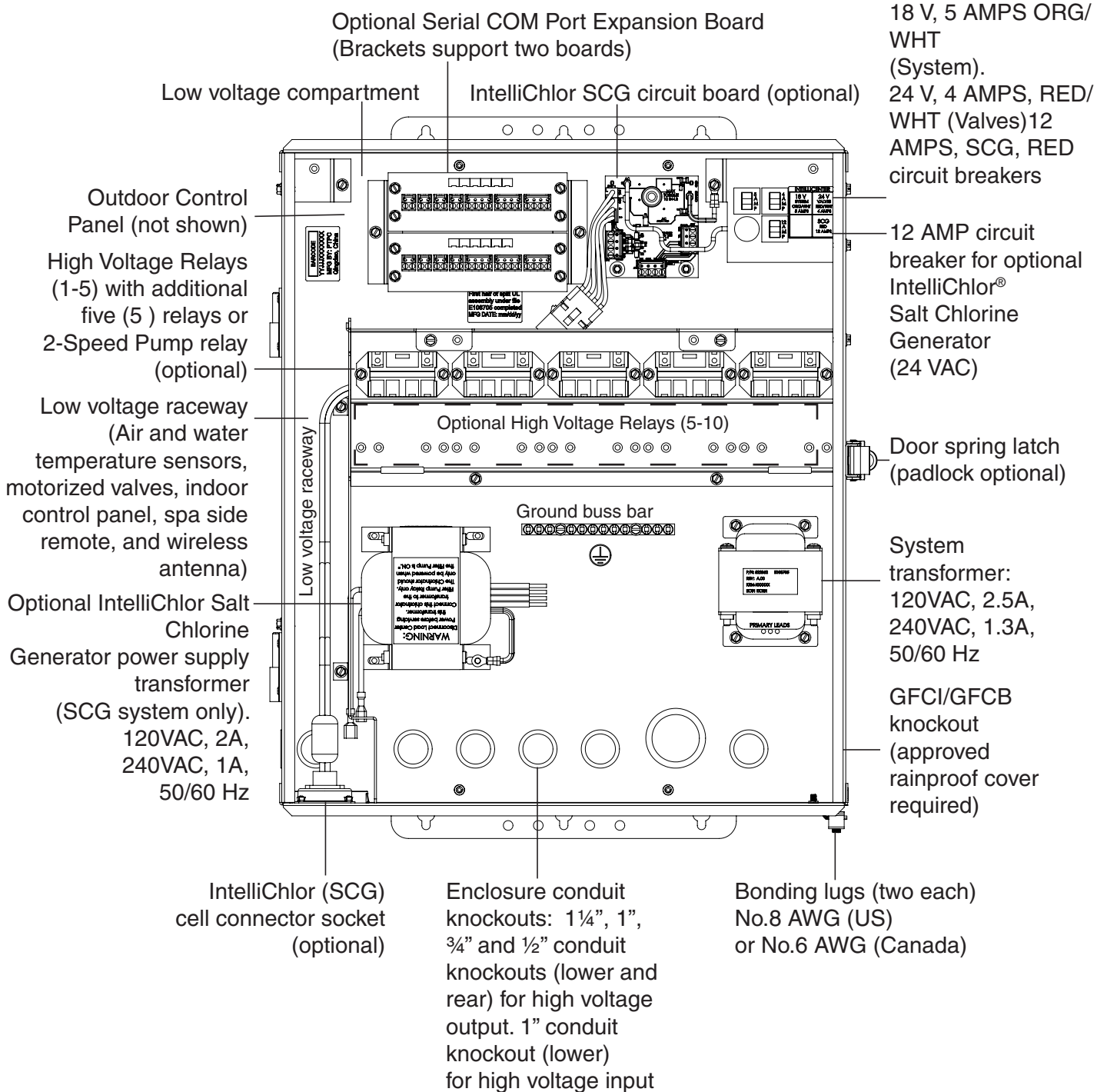
IntelliCenter Control System Main Circuit Board
(with i10PS optional expansion card shown)



IntelliCenter Control System Load Center

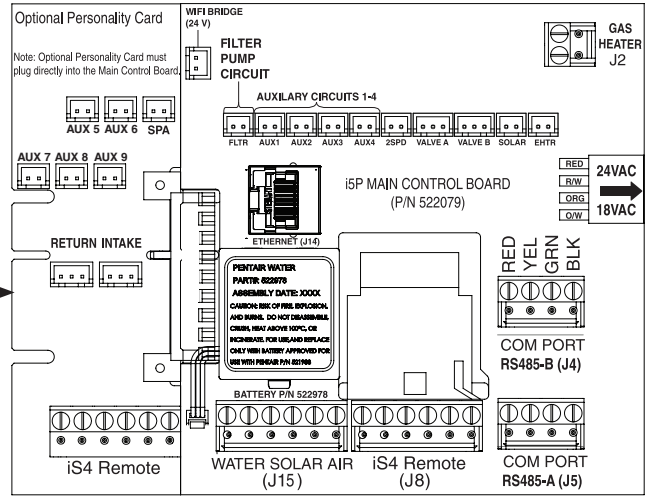
IntelliCenter® Control System Power Center (without built-in sub panel)

The IntelliCenter Control System Power Center and the IntelliCenter PC 5P Power Center (without sub panel) must be installed at the equipment pad. AC power to the Power Center is provided from the electrical circuit breaker panel (sub panel) installed at the equipment pad. The Power Center should be installed next to the sub panel.

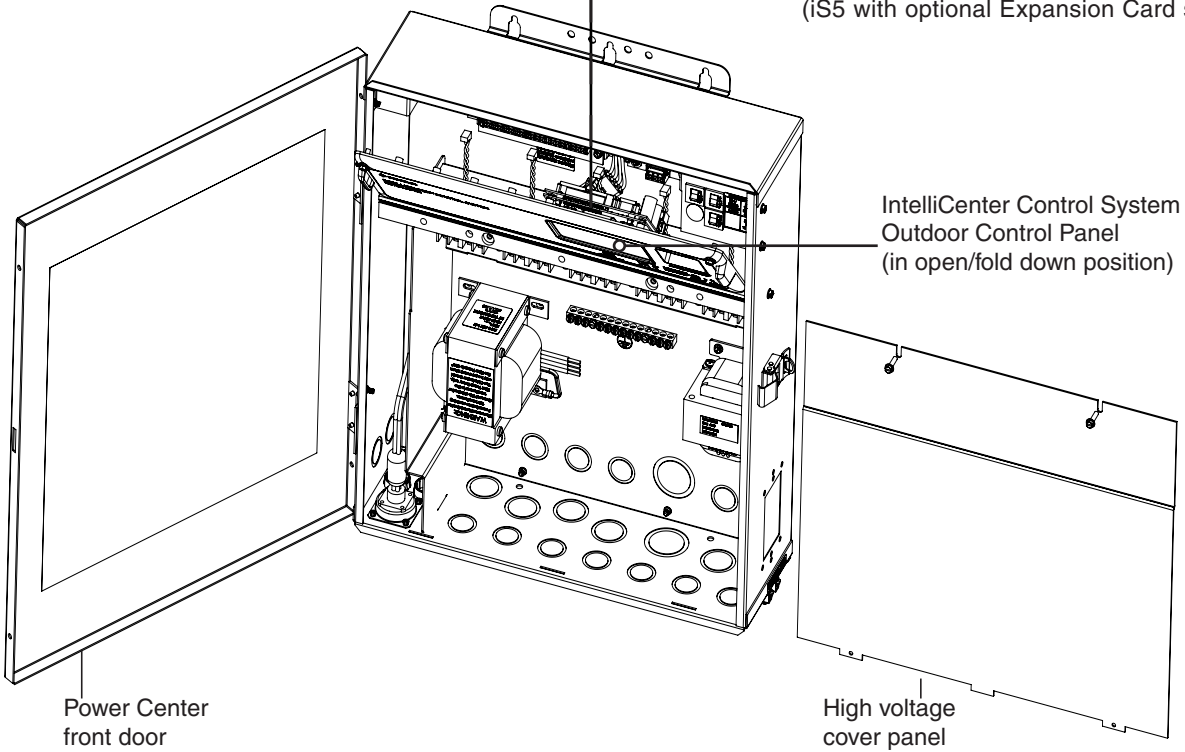


IntelliCenter Control System and IntelliCenter PC 5P Power Center (20" H x 17" W x 5 1/4" D)
(Front view with door and high voltage cover panel removed)

IntelliCenter® Control System and IntelliCenter PC 5P Power Center (without sub panel) Continued



IntelliCenter Control System Main Circuit Board
(iS5 with optional Expansion Card shown)



IntelliCenter Control System Power Center

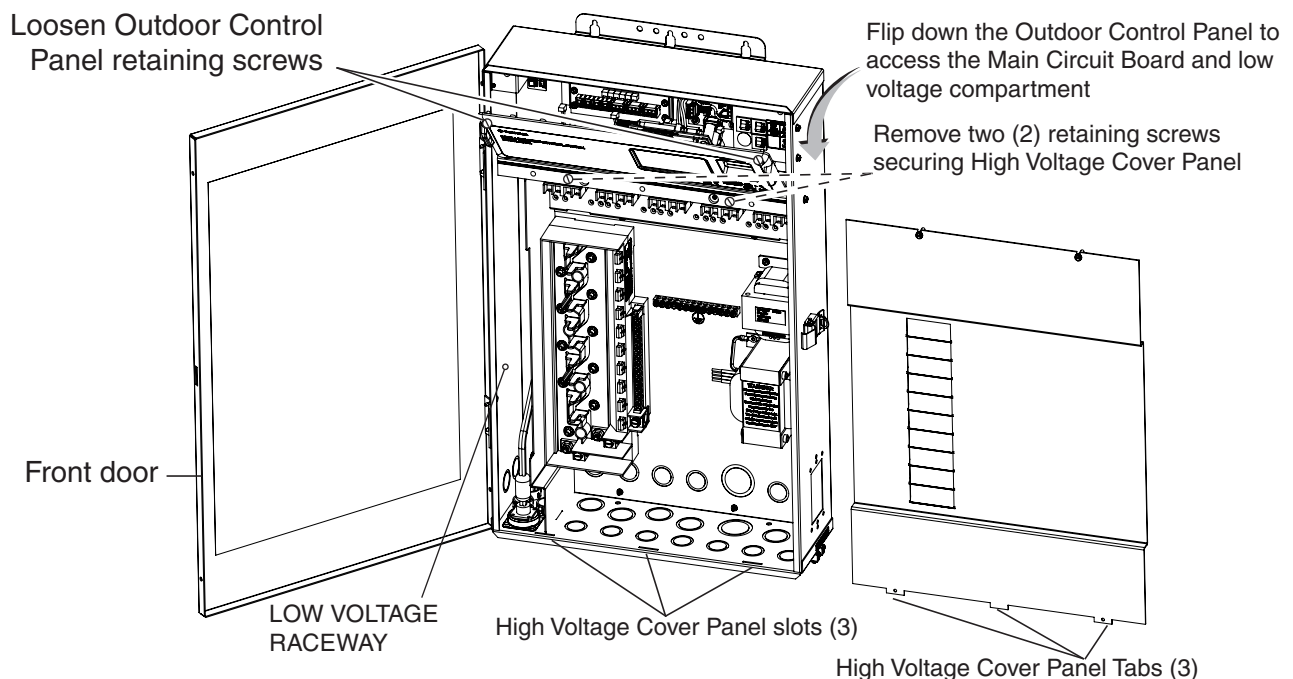
Preparing the IntelliCenter® Load Center and Power Center Enclosure

⚠ WARNING BEFORE INSTALLING THE LOAD CENTER AND POWER CENTER, ALWAYS SWITCH OFF THE MAIN POWER into the home at the main circuit breaker box.

Before mounting the Load Center, first remove the front door and the high voltage cover panel to access the enclosure conduit knockouts and low voltage raceway (see page 9 and 10).

To remove the Load Center or Power Center high voltage cover panel:

1. Unpack the Load Center from the shipping carton.
2. Unlatch the front door spring latch and open the front door.
3. Remove the two retaining screws from the High Voltage Cover Panel. Remove the panel from the enclosure.
4. Loosen the two retaining screws securing from the top edge of the Outdoor Control Panel. Fold down the Outdoor Control Panel to access the circuit board sockets connectors for the electrical connections.
5. For new installation, proceed with:
 - **Mounting the Load Center / Power Center**, page 7-8
 - **Load Center / Power Center Conduit Knockout Locations**, page 9-11
 - **Installing Conduit and Conductors to the Enclosure**, page 11
 - **Electrical Wiring and High Voltage Load Center Connections**, page 12-14
 - **Electrical Wiring and High Voltage Connections**, page 12-14
 - **Accessing the Control Circuit Boards and Electronics**, page 15
 - **Connecting Relay Valve Actuators, Sensors, Gas Heater, Pumps, Sanitizers**, page 16
6. After electrical connections have been completed; close the Outdoor Control Panel and tighten the two retaining screws. Reinstall the High Voltage Panel: Insert the panel's three tabs into the lower slots on the enclosure. Secure the panel with the two (2) retaining screws. Close the front door and secure with the latch.



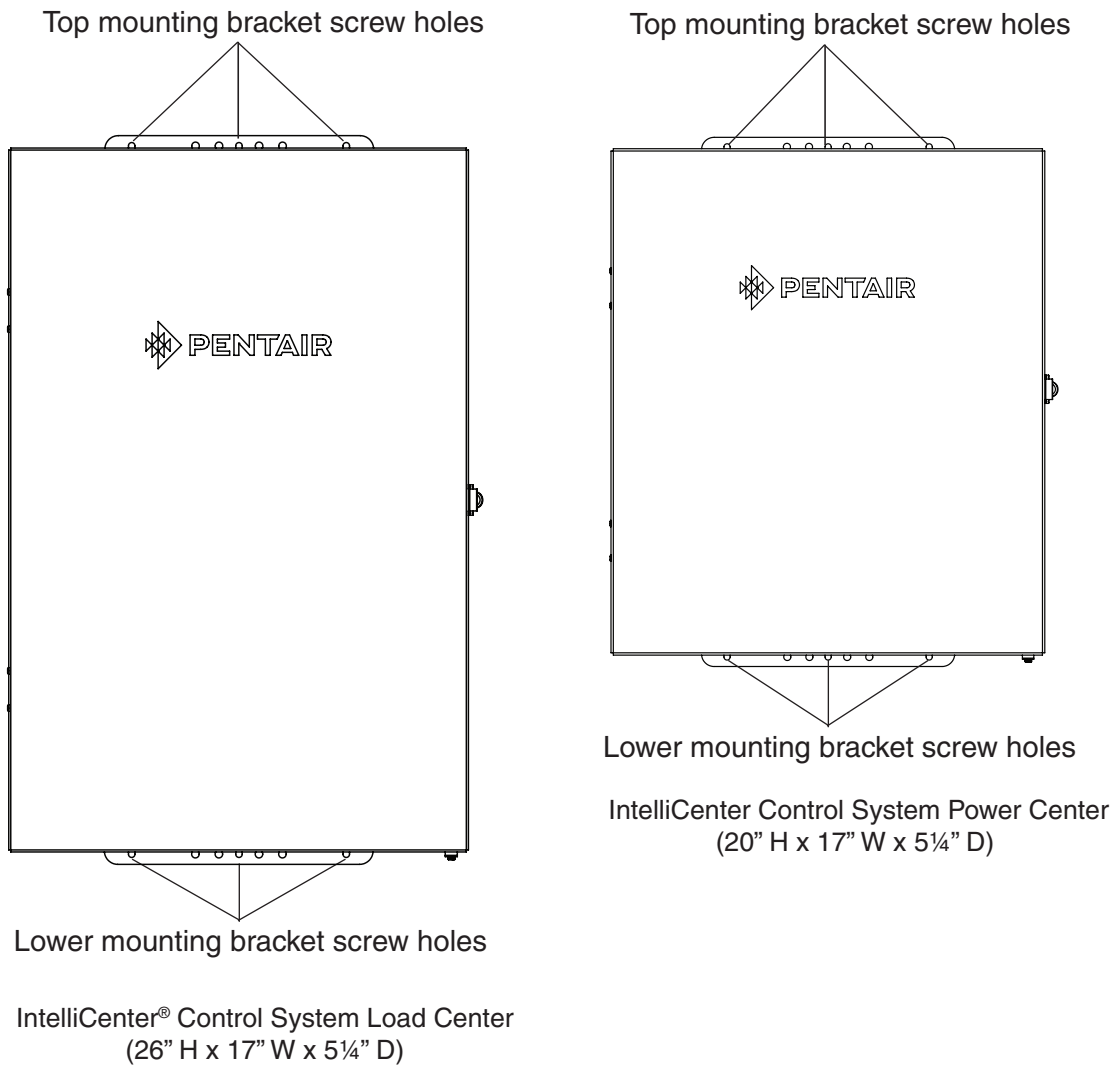
IntelliCenter Control System Load Center (Front View)

Mounting the IntelliCenter® Control System Load Center and IntelliCenter PC 5P Power Center

Mount the IntelliCenter Control System Load Center or Power Center on a flat vertical surface, such as a wall or post at eye level, at least 5 ft. (1.5 m), (Canada 3 m (9.75 ft)) from the pool, spa or hot tub.

To mount the Load Center or Power Center:

1. Position the enclosure against a vertical flat surface. If wall anchors are being used, support the enclosure in position (horizontally level and square) against the surface and mark the bracket hole pattern on the wall.
2. Secure the enclosure with three (3) screws in the top and lower mounting bracket holes. If using wall anchors, drill and set the anchors and secure the enclosure with screws.



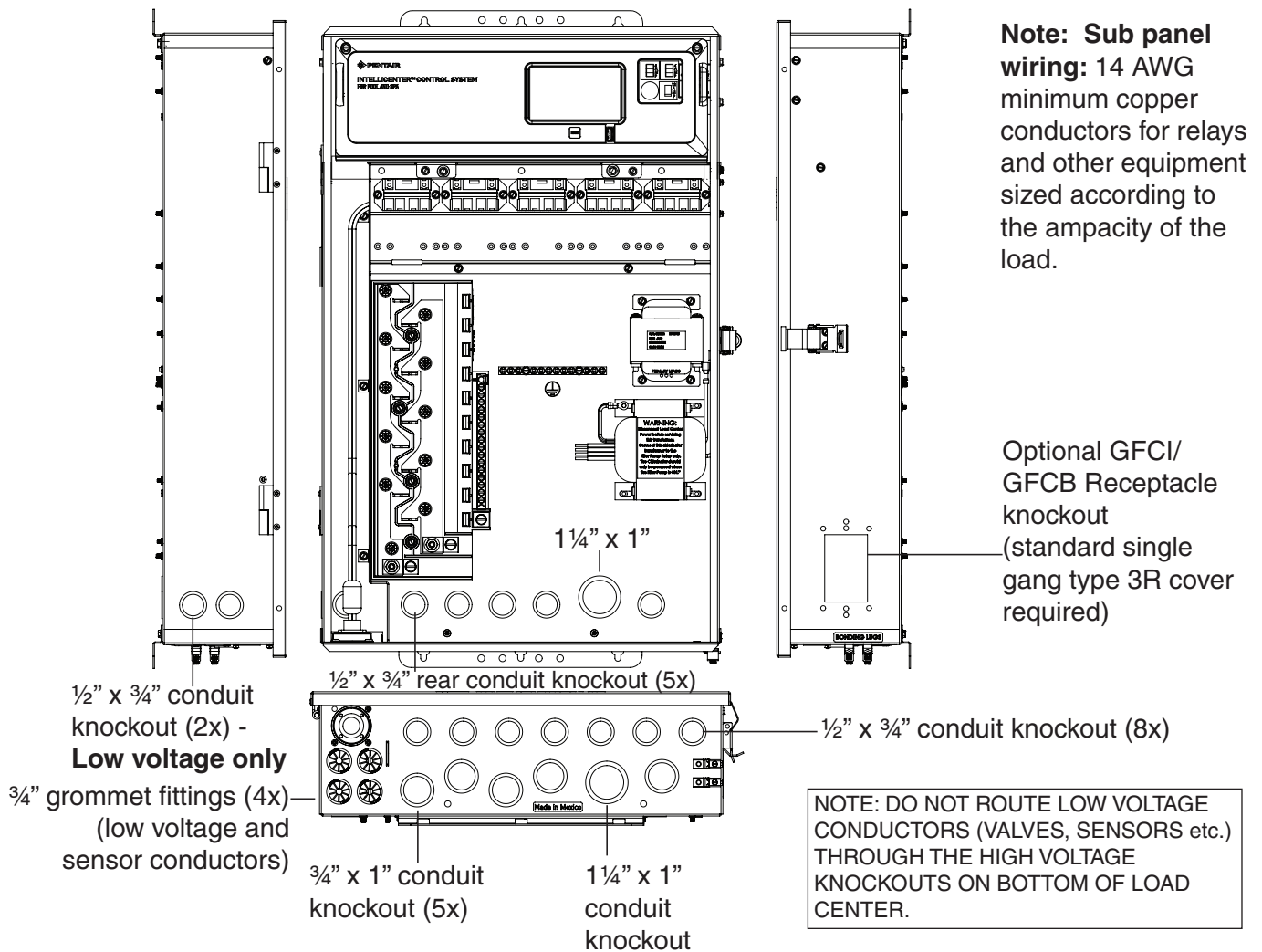
Load Center Conduit Knockout Locations

Before installing electrical conduits and connecting AC power to the IntelliCenter® Control System Load Center or Power Center enclosure, read the following recommended guidelines:

- Determine the number of low and high voltage circuits being used in the Load Center or Power Center. The conduit size and runs needed based on the conductor size, and the number of conductors within the conduit. The enclosure conduit knockout sizes are 1 1/4", 1", 3/4" and 1/2".
- Enclosure conduit knockouts for AC power are located on the sides, bottom and back of the enclosure. Conduit knockout sizes for AC power are: 1 1/4", 1", 1/2" and 3/4". It is recommended to use 1 1/4" x 1" conduit for the main AC power conductors.
- The Load Center and Power Center enclosure must be located a minimum of 5 ft. (1.5 m), (Canada 3 m (9.75 ft)) from the inside wall of pool or spa.

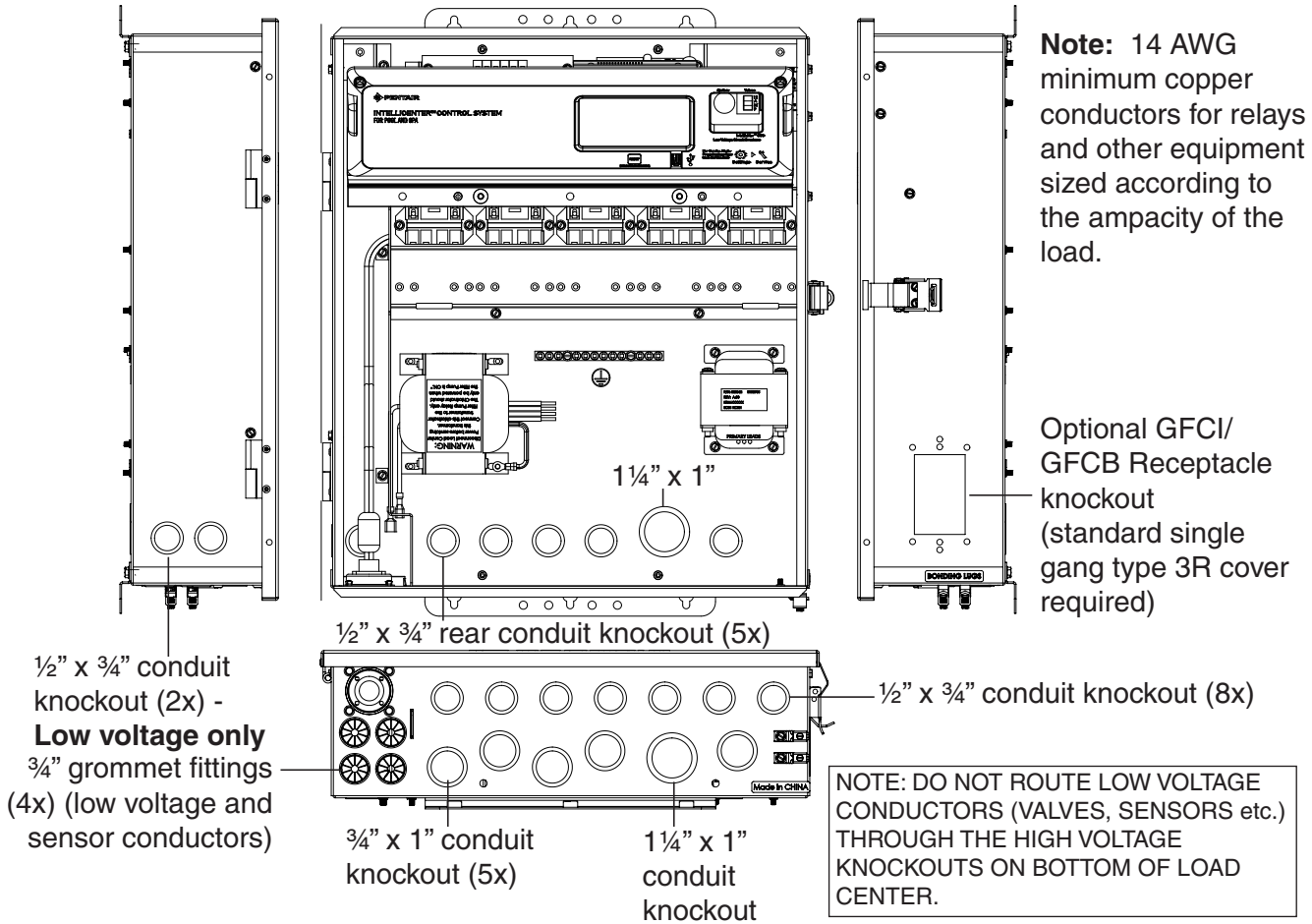
Remove the enclosure conduit knockouts as needed:

- Low voltage raceway has two 1/2" x 3/4" conduit knockouts located on the left side and rear of the enclosure.
- High voltage compartment has twelve 1/2" x 3/4", five 3/4" x 1" and two 1 1/4" x 1" conduit knockouts located on the bottom of the enclosure.



IntelliCenter Control System Load Center (Lower, side and back panel knockout locations)

Power Center Conduit Knockout Locations



IntelliCenter® Control System Power Center (Lower, side and back panel knockout locations)

Installing Conduit and Conductors to the Enclosure

Before installing electrical conduit to the enclosure, read the following recommended guidelines:

NOTE: All electrical installation, including electrical wiring methods and materials used to complete the electrical installation of the IntelliCenter Control System **MUST BE PERFORMED BY A SERVICE PROFESSIONAL AND/OR UNDER DIRECT SUPERVISION OF A QUALIFIED ELECTRICIAN** in accordance with the National Electrical Code or the Canadian Electric Code, as well as any local electrical codes in effect at the time of installation. **Refer to NEC 680 (b) or CEC 687-060, 062, and 066 for further details.**

- Determine the number of low and high voltage circuits being used in the IntelliCenter® Control System Load Center or Power Center. The conduit length is based on the conductor size, and the number of conductors within the conduit. **The number of pieces of equipment to be controlled will dictate the size of the conduit. DO NOT RUN HIGH VOLTAGE AND LOW VOLTAGE CONDUCTORS IN THE SAME CONDUIT.**
- Use 14 AWG minimum to 6 AWG maximum 140°/158° F (60°/70° C) or better copper conductors for relay circuits depending on the load requirement. Be sure to follow all NEC regulation safety codes for the number and size of conductors that can be installed in various sizes of conduit.
- Supply conductor must be sized to support all loads. The maximum supply current must NOT exceed 150 AMP at 120 VAC/240 VAC.
- Supply circuit must be protected by suitable breaker rated no higher than 150 AMP. If one relay is used for more than one device, verify that the total current draw (all equipment) does not exceed the current rating of the circuit.
- The IntelliCenter Control System automation control circuit board requires 120 VAC, 3A power to operate the control logic circuits and the optional IntelliChlor® Salt Chlorine generator. This power should be connected to one of the circuit breakers in the sub panel.
- To avoid obstruction into the Load Center or Power Center, when using electrical conduit complete the installation of the conduit before concrete is poured. Also, underground conduit should be positioned in well compacted soil. Ensure that all conduit joints are well sealed and watertight.

Electrical Wiring and High Voltage Connections

	<p>TO AVOID AN ELECTRICAL HAZARD - Do not connect the power source conductors to the Load Center circuit breaker until all electrical connections for all loads (heaters, pumps, motorized valves, and lights etc.) have been completed.</p>
---	---

Main AC Power Connection (Load Center Circuit Breaker Sub panel)

The IntelliCenter® Control System Load Center with circuit breaker sub panel is rated for 150 AMP maximum Single Phase (3 conductor). Run properly rated conductors (L1,L2, N, and GROUND) from the primary house electrical panel to the main AC power connections on the Load Center circuit breaker base. The connection at the main house panel should be to a 240 VAC circuit breaker rated at 150 AMP maximum.

Grounding and Bonding Connections

Connect a ground conductor from the primary house electrical panel to the Load Center or Power Center GROUND BUS BAR (see page 3 and 5). Also ground each piece of high voltage (120 VAC or 240VAC) equipment that is connected to the Load Center or Power Center relays or circuit breakers. Also connect the Load Center and Power Center to the pool bonding system using 8 AWG (6 AWG for Canada) conductor. There are two (2) GROUND LUGS provides on the bottom of the Load Center and Power Center.

Circuit Breakers (Load Center with sub panel)

Circuit Breakers are to be supplied and installed by the site installer. For recommended circuit breaker types, refer to the circuit breaker chart on the inside front door of the Load Center or Power Center. Be sure to follow all manufacturer's circuit breaker rating requirements. Some pool equipment require connection to ground fault circuit breakers (GFCI). Check local and NEC (CEC) codes for these requirements.

Note: For recommended field conductor gauge usage, refer to conductor size listed on the circuit breaker label.

Note: Wiring to Load Center: 14 AWG minimum copper conductors for relays and other equipment sized according to the ampacity of the load.

Load Center and Power Center High Voltage Connections



TO AVOID AN ELECTRICAL HAZARD - Do not connect the power source conductors to the Load Center circuit breaker until all electrical connections for all loads (heaters, pumps, motorized valves, and lights etc.) have been completed.

GFCI and GFCB Connections

- Use the rectangular knockout on the right side of the Load Center and Power Center enclosure to mount an approved GFCI or GFCB with rainproof type 3R cover (supplied by installer) for direct connection of underwater pool and spa lights.
- Use the one of the three low voltage raceway 3/4" holes located on the underside of the enclosure for the temperature sensor conductors (see page 3 and 5).

NOTICE: For the AC supply conductor into the Load Center and Power Center from the main circuit breaker at the house, use three conductors, one each for red, black, and white (or red, red and black for 240 VAC). The maximum load is 150 AMP at 120 VAC/240 VAC 60 Hz/50 Hz. These conductors should be secured to supply side of circuit breaker base. For the main AC power conduit, it is recommended to use the 1¼" x 1" conduit knockout located directly under the enclosure circuit breaker (see page 3 and 5).

IntelliCenter® Control System Load Center and Power Center Wiring Diagram

- For IntelliCenter Control System wiring schematic, see page 60 and 61 (and inside front door of Load Center and Power Center)
- For re-wiring the IntelliChlor® (SCG) transformer for 120V see page 37.

Rewiring the IntelliCenter Control System Transformer for 240VAC

The IntelliCenter® Control System Load Center/Power Center system transformer can be wired for 120 VAC at 2AMP 50/60 Hz (factory installed) or 240 VAC at 1AMP 50/60 Hz. The system transformer is pre-wired at the factory for 120 VAC service.

To rewire the system transformer for 240 VAC (see wiring diagram on next page):

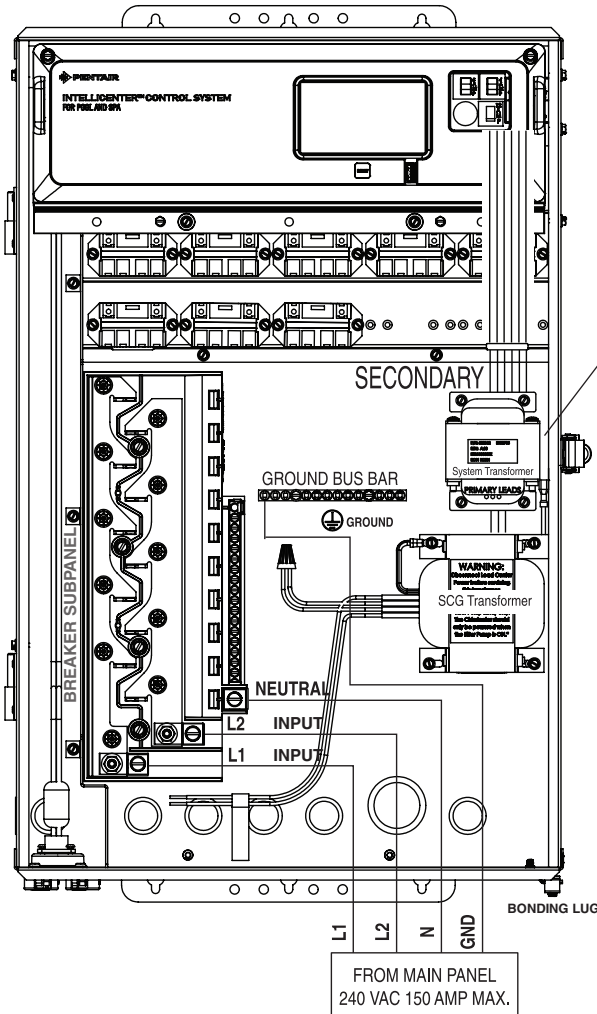
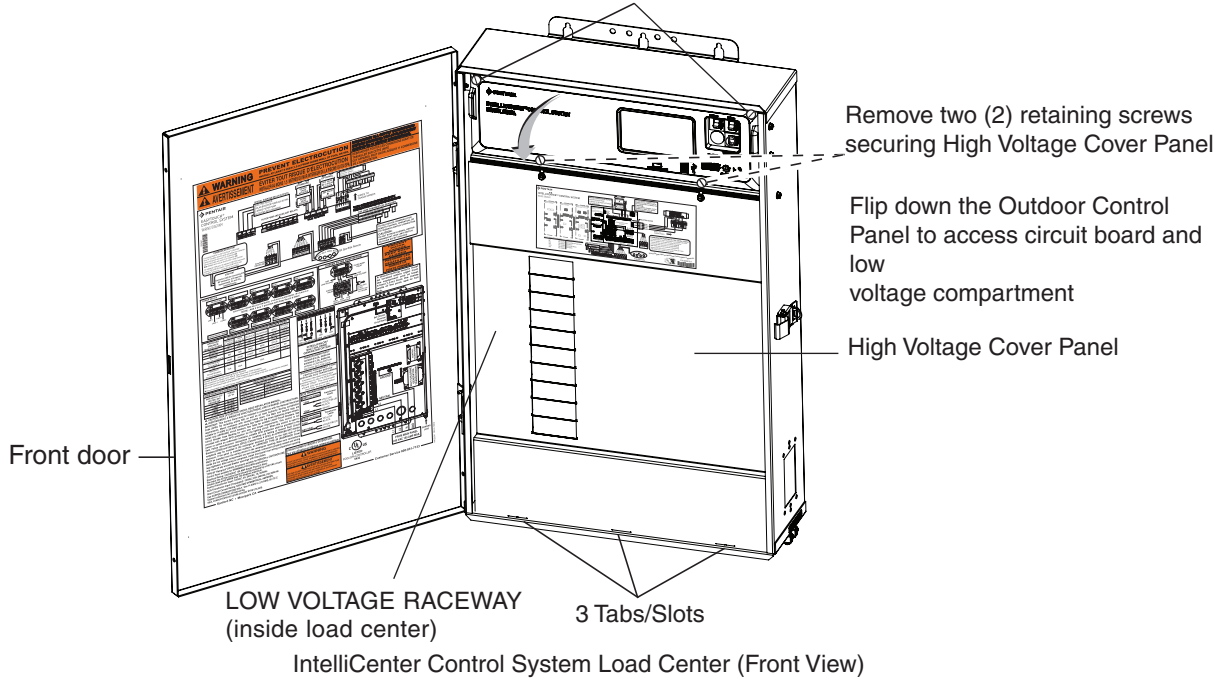


BEFORE REMOVING THE HIGH VOLTAGE COVER PANEL FROM THE LOAD CENTER OR POWER CENTER ENCLOSURE switch OFF the power at the house main circuit breaker box.

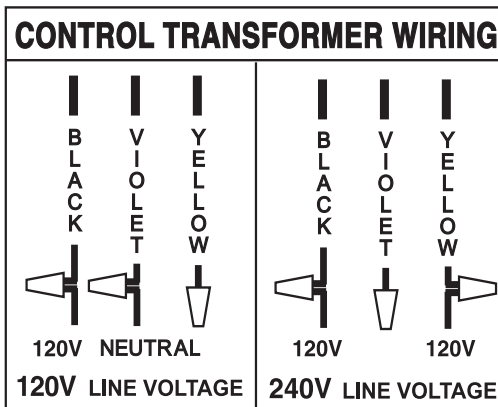
1. SWITCH OFF AC POWER the Load Center and/or Power Center at the main circuit breakers.
2. Unlatch the front door latch and open the front door. Remove the two (2) retaining screws securing the high voltage cover panel. Remove the HIGH VOLTAGE COVER PANEL from the enclosure.
3. Rewire the system transformer for 240 VAC as shown in the wiring diagram below.
4. Reinstall the High Voltage Panel: Insert the panel's three tabs into the lower slots on the enclosure. Secure the panel with the two (2) retaining screws.
5. Close the front door and secure with the latch.

Rewiring the System Transformer for 240 VAC (Continued)

Loosen Outdoor Control Panel retaining screws



Control System transformer:
120VAC, 2.5A,
240VAC, 1.3A,
50/60 Hz



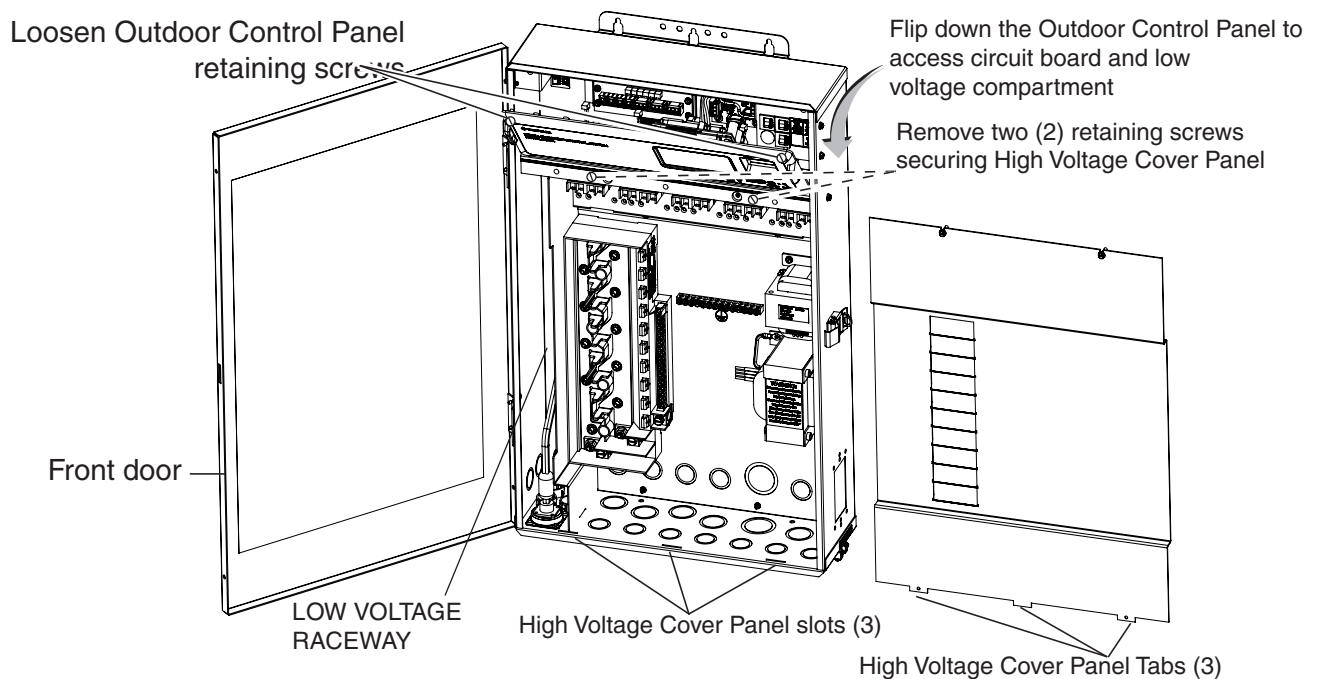
IntelliCenter® Control System Load Center Wiring Instructions

Accessing the IntelliCenter® Control System Circuit Boards and Electronics

The IntelliCenter Control System Outdoor Control Panel is mounted on the front of the Load center and Power Center. The system circuit boards and electronics are located behind the Outdoor Control Panel. The circuit boards provides socket connectors for the auxiliary relays, valve actuators, sensors, gas heater and related equipment. To access the circuit boards, fold down the Outdoor Control Panel.

To access the main circuit board connectors:

1. Unlatch the front door spring latch and open the front door.
2. Remove the two retaining screws from the High Voltage Cover Panel. Remove the panel from the enclosure.
3. Loosen the two retaining screws securing from the top edge of the Outdoor Control Panel. Fold down the Outdoor Control Panel to access the circuit board sockets connectors for the electrical connections.
4. Install the following:
 - **IntelliCenter Control System Load Center Relays**, page 16
 - **Installing Valve Actuators**, page 18
 - **IntelliValve® Valve Actuator**, page 21
 - **Temperature Sensors**, page 26-28
 - **Standard Gas Heater**, page 29
 - **Connecting an IntelliFlo® Pump to the Load Center**, page 30
 - **Pump and Heat Pump (UltraTemp®/Hybrid Heat Pump)**, page 31
 - **Connecting IntelliChlor® SCG, IntelliChem® Controller**, page 32-38
5. After electrical connections have be completed, close the Outdoor Control Panel and tighten the two retaining screws. Reinstall the High Voltage Panel: Insert the panel's three tabs into the lower slots on the enclosure. Secure the panel with the two (2) retaining screws. Close the front door and secure with the latch.



IntelliCenter Control System Load Center (Front view)
(High Voltage Cover Panel removed)

Connecting IntelliCenter® Control System Load Center Relays

For the IntelliCenter Control System (model i5PS) there are five high voltage relays pre-installed in the Load Center (as shown on page 17); four auxiliary circuits (AUX) plus one relay for the filter pump.

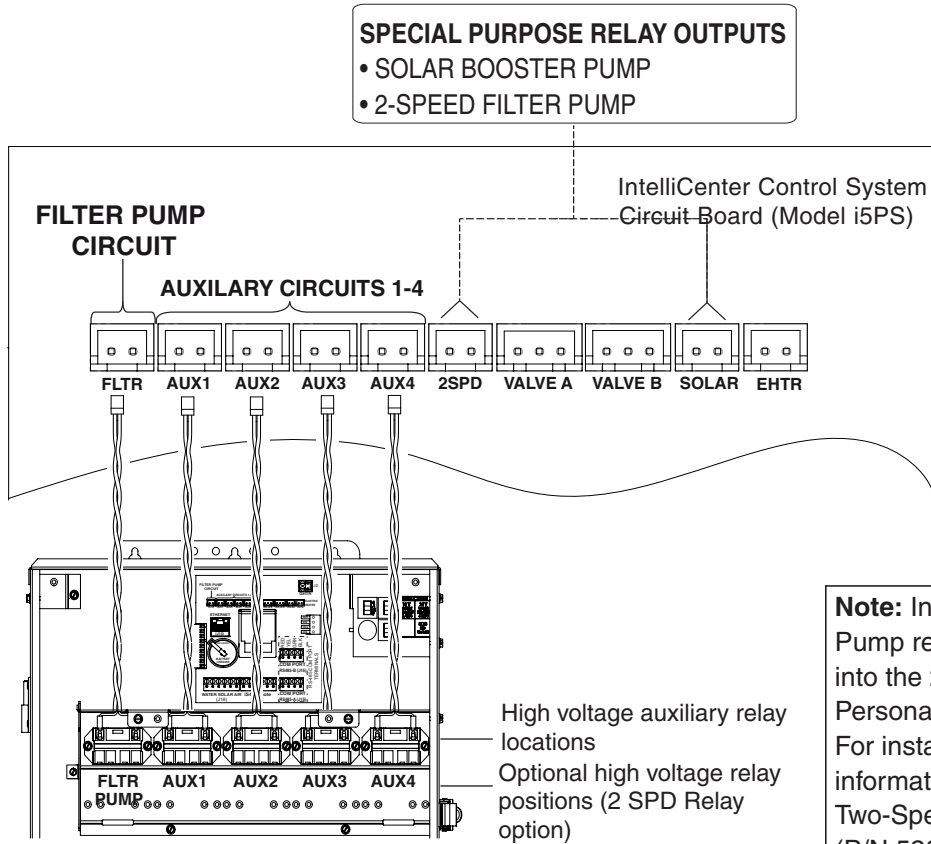
- **Shared Equipment: Pool and spa combinations with shared filtration system** – The Personality Kit models are:
 - i5PS (P/N 521912) – Four auxiliary circuits plus filter pump operation. Five relays are included in the Load Center.
 - i8PS (P/N 521913) – Seven auxiliary circuits plus filter pump operation. Three relays are included in the personality kit and five in the Load Center.
 - i10PS (P/N 521914) – Nine auxiliary circuits plus filter pump operation. Five relays are included in the personality kit and five in the Load Center.
- **Dual Equipment: Pool and Spa with Dual Sets of Equipment** – The IntelliCenter control system i10D (P/N 521915) is designed to operate two sets of pool equipment. Each set of a equipment (Pool or Spa) can control one temperature setting. This IntelliCenter control system Personality Kit can control up to 10 pumps and/or lighting circuits, plus two heater circuits. The Personality Kit includes, eight auxiliary circuits plus two filter pumps. Five relays are included in the personality kit and five in the Load Center.
- **Single Equipment: Pool Only or Spa Only** – Single Equipment: Pool Only or Spa Only – This system is designed to operate a single body of water (LO-TEMP and HI-TEMP). The Personality Kit models are:
 - i5P (P/N 521909) – Four auxiliary circuits plus filter pump operation. Five relays are included in the Load Center.
 - i8P (P/N 521910) – Seven auxiliary circuits plus filter pump operation. Three relays are included in the personality kit and five in the Load Center.
 - i10D (P/N 521911) – Nine auxiliary circuits plus filter pump operation. Five relays are included in the personality kit and five in the Load Center.

To connect the pre-installed relay cable plugs to the IntelliCenter Control System circuit board AUX plugs:

- Route the power relay cable plugs up into the Low Voltage Compartment (as shown on page 17) to the circuit board. Insert the plug into the two-pin sockets, beginning with **FLTR PUMP**, then **AUX1**, **AUX2**, **AUX3**, and **AUX4**. For the two-pin socket locations, refer to the diagram shown below. For IntelliCenter control System system wiring diagrams, see page 59-59.

Note: **For optional relays**; insert each optional auxiliary relay plug into the one of the two-pin sockets, beginning with **AUX5**, **AUX6**, **AUX7**, **AUX8** and **AUX 9**.

Connecting IntelliCenter® Control System Load Center Relays (Continued)



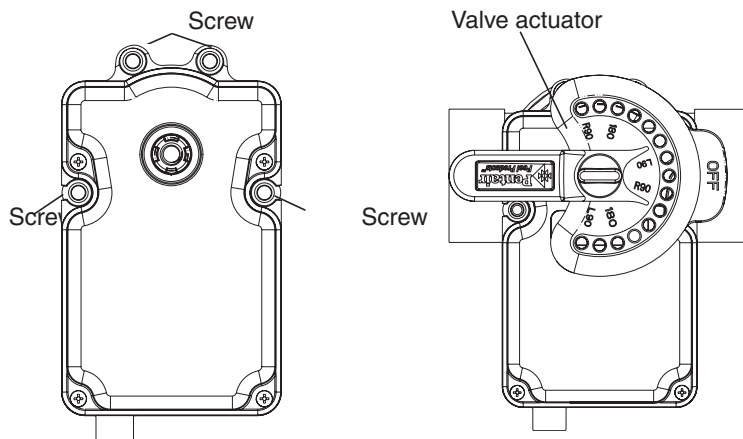
IntelliCenter Control System Load Center relays AUX circuits connections (i5PS model)

Installing Valve Actuators

The IntelliCenter® Control System can control multiple valve actuators. Two of the valve outputs are dedicated to the pool/spa intake (INTAKE) and return (RETURN) valves. Valve A or Valve B actuators are for general purpose use (solar, water-feature, in-floor cleaner, etc.). For IntelliCenter Control System shared equipment systems there are two motorized valve actuators (CVA-24T, P/N 263045) provided in the kit.

To install the valve actuator (two-way valve example shown):

1. Remove the valve knob, handle and the four screws, from the valve cover (indicated with arrows).
2. Align the splines of the actuator shaft over the shaft of the valve.
3. If the actuator is not aligned with the mounting holes on the valve cover, rotate the actuator (while still attached to the valve) until the actuator is positioned correctly over the valve.
4. Secure the actuator with the screws provided. Only use self-tapping screws when required.
5. Mount the valve handle and knob onto the actuator.

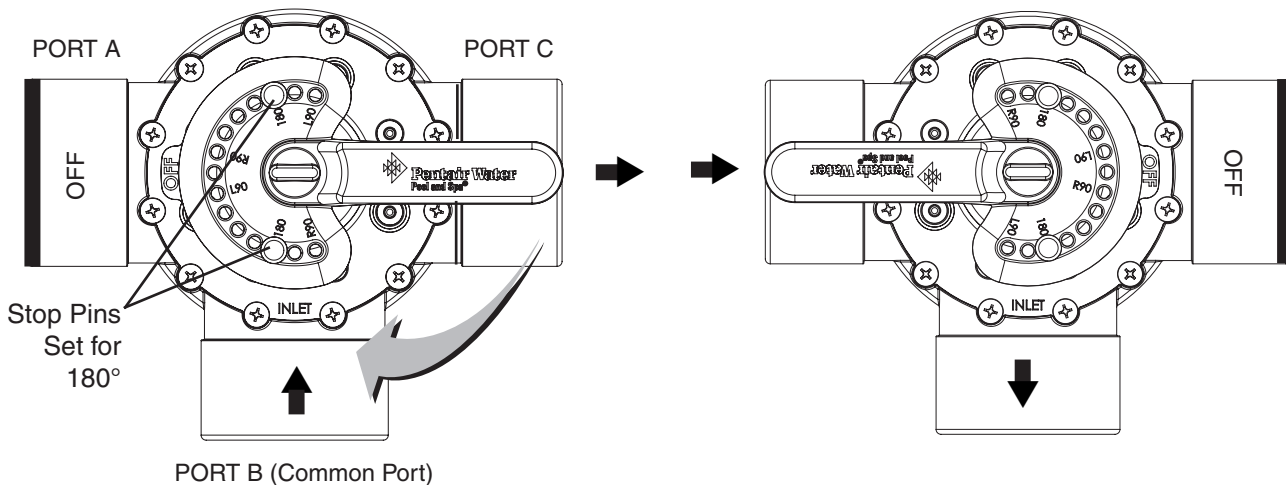


Adjusting the valve position (3-way valve shown below)

If the valve rotates to the wrong position, adjust the switch on the back of the actuator between ON1 and ON2 positions. This will rotate the valve to the correct position. The following diagram shows the standard plumbing and valve actuator position.

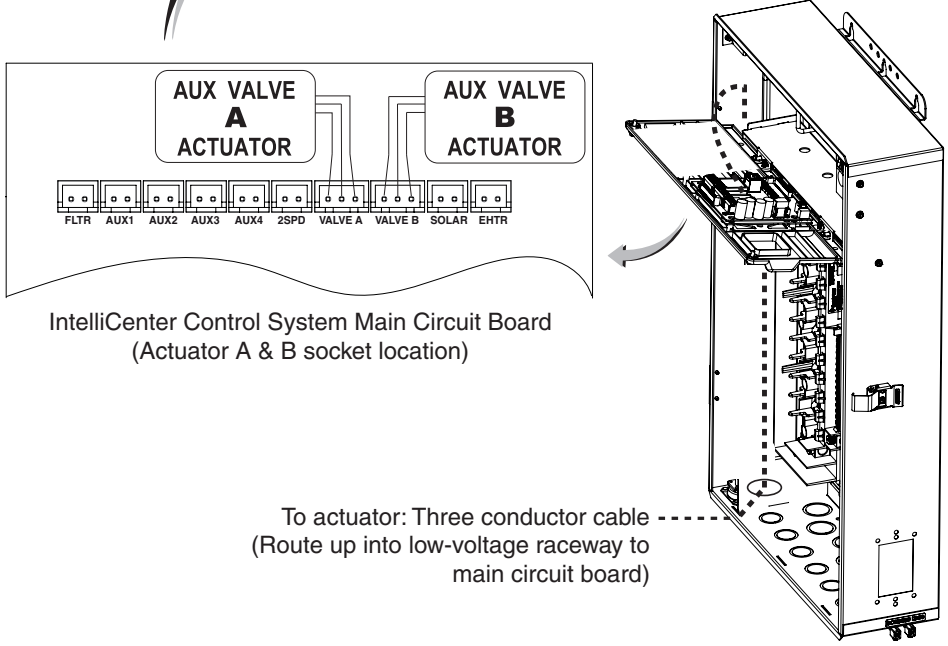
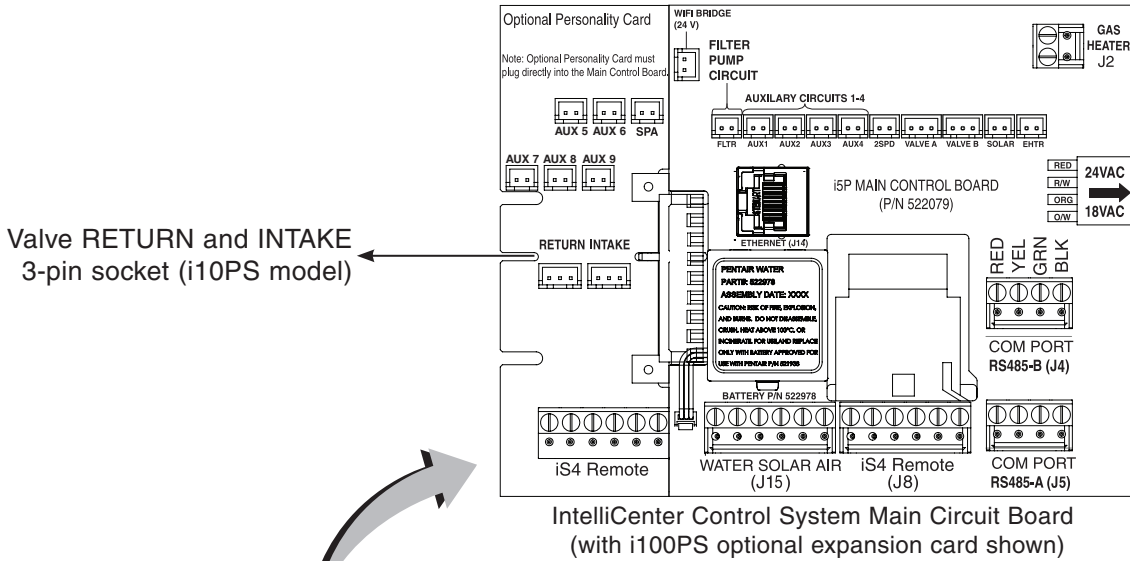
Valve Handle Operation: To reposition the valve handle: Rotate the handle to the desired “OFF” position. The diverter valve handle OFF indicator, represents the current position of the valve’s internal diverter seal which will stop the flow of water. The valve handle stop-pins determine the position of the diverter valve’s internal seal to stop or allow water flow. Note: When a motorized valve actuator is installed, stop-pins are not required.

Handle Stop-Pins Positions: The two movable stop-pins can be set to allow the valve handle’s position to completely stop the flow of water, regulate a limited flow, or allow the maximum flow. To set the stop-pins: Insert the stop-pins in the pin holes according to the corresponding “degree indicator” displayed on top of the handle. The stop-pin positions can be set to 180°, L90° (left-side) and R90° (right side). Repositioning of either stop-pins allows the handle to be set to any desired percentage of water flow.



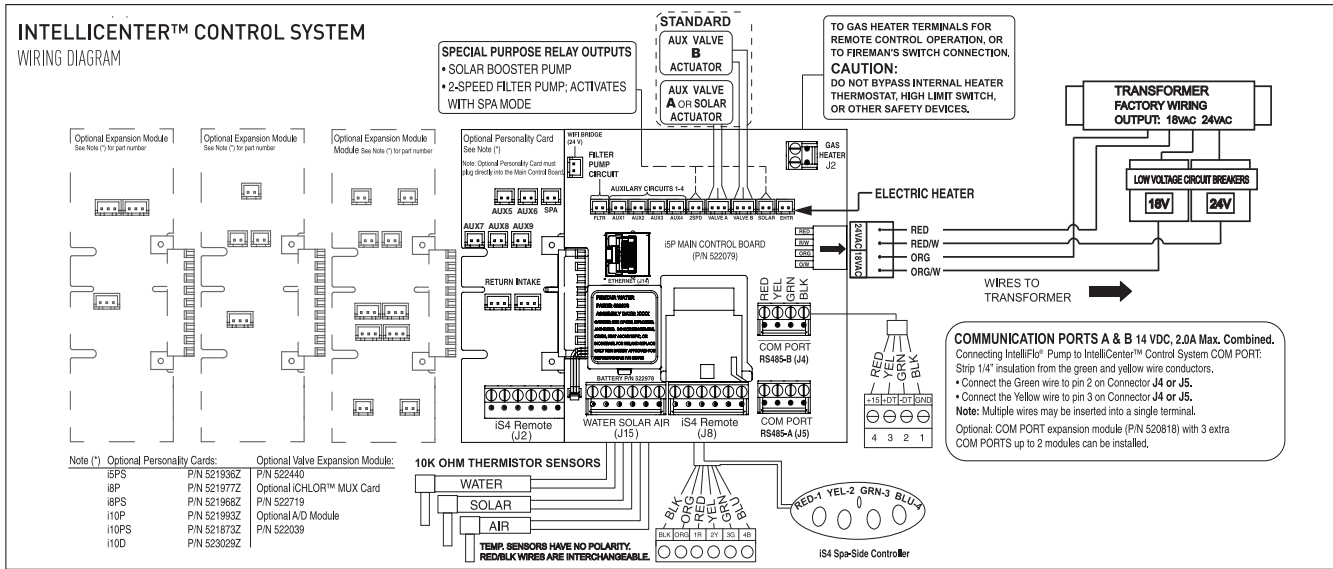
Installing Valve Actuators (Continued)

- 6. At the Load Center or Power Center, route the cable up through the 1" grommet and low voltage raceway to the circuit board (as shown below).
- 7. Connect the Valve A actuator cable plug into the **INTAKE** (suction) 3-pin socket, and Valve B actuator cable plug into the **RETURN** three-pin socket on the IntelliCenter® Control System Personality circuit board. Excess cable can be coiled in the enclosure low voltage raceway left side compartment (see page 7). Do not coil the conductor in Load Center upper low voltage compartment. For valve actuator circuit board socket location see below. For plumbing requirements, see Item 2 and 3 on page 69.



Installing Valve Actuators (Continued)

8. Optional Valve Module Expansion Boards: Using one Valve Module Expansion board (P/N 522038), six additional valve actuators (VALVE C, D, E, F, G, H) can be added to the system for a total of 10 actuators. The expansion board attaches to the edge of the IntelliCenter Control System circuit board. For installation and operation information, refer to the Valve Actuator Installation Guide (P/N 270140).



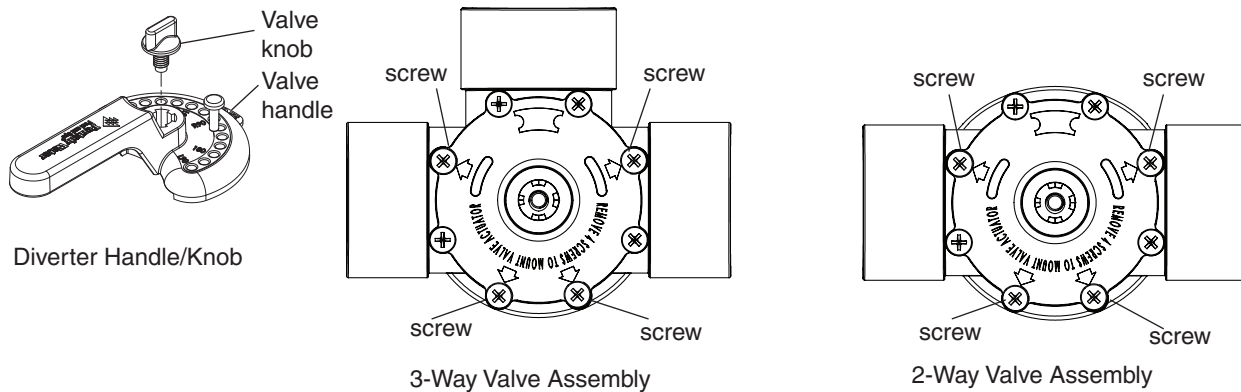
IntelliCenter® Control System Circuit Board (Model i8PS shown)

Installing IntelliValve® Valve Actuator

The IntelliValve Valve Actuator can be installed on a 2-way, 3-way or 3-way Y valve assembly.

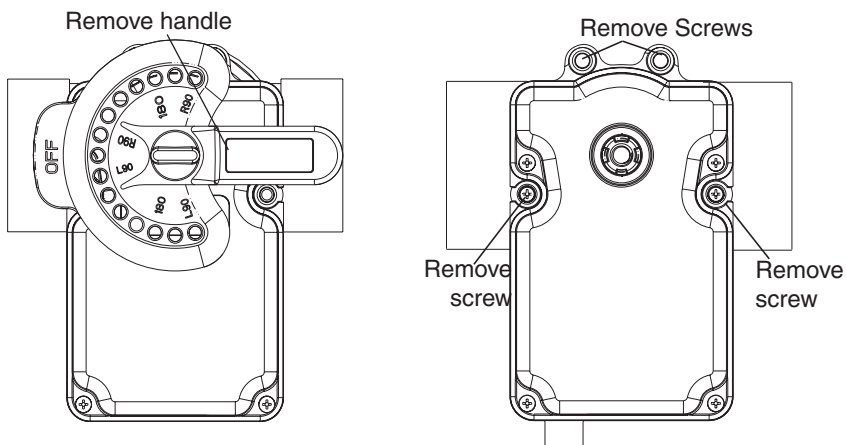
Valve assembly without actuator:

- Unscrew and remove the diverter valve knob and handle. Remove the four screws from the valve assembly top cover (embossed arrows indicate the screw locations as shown below).



Valve assembly with existing actuator:

- CAUTION:** Switch OFF the main system power at the circuit breakers.
- Disconnect the valve actuator power cord from the control system.
- Unscrew and remove the diverter valve knob and handle from the valve actuator.
- Remove the four screws from the valve actuator assembly. Remove the actuator from the valve, as shown below.



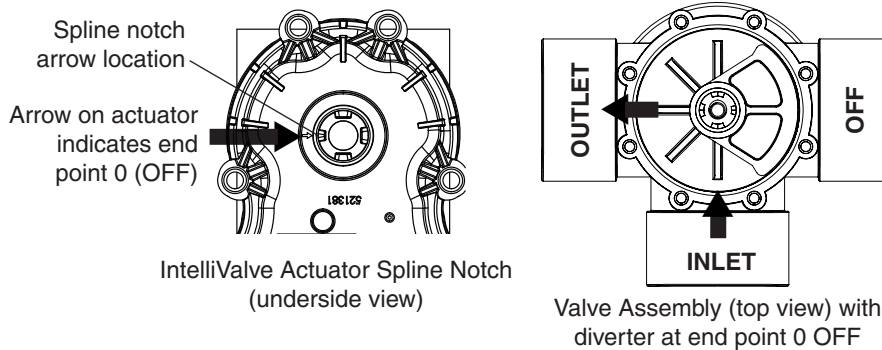
Valve Assembly with Actuator

Mount the IntelliValve® Valve Actuator onto the Valve:

1. Align the splines of the IntelliValve valve actuator shaft over the shaft of the valve. Note: The keyed square spline notch (as shown below) indicates the position of the diverter. Note: End Point at 0 (OFF) is the default position of the IntelliValve Valve Actuator.

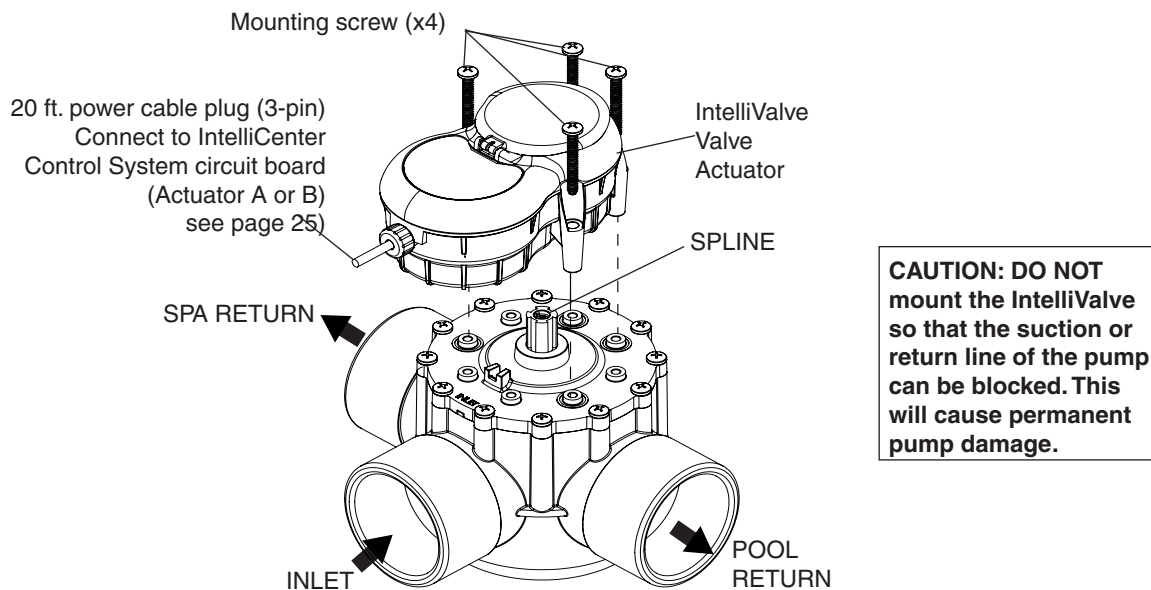
Note: There is silicone on the actuator assembly and spline. While mounting the IntelliValve valve actuator be careful not to get silicone on the bottom of the IntelliValve assembly.

2. If the IntelliValve valve actuator does not align with the mounting holes on the valve cover, rotate the actuator (while still attached to the valve) until the actuator manufacturers holes line up on the valve.



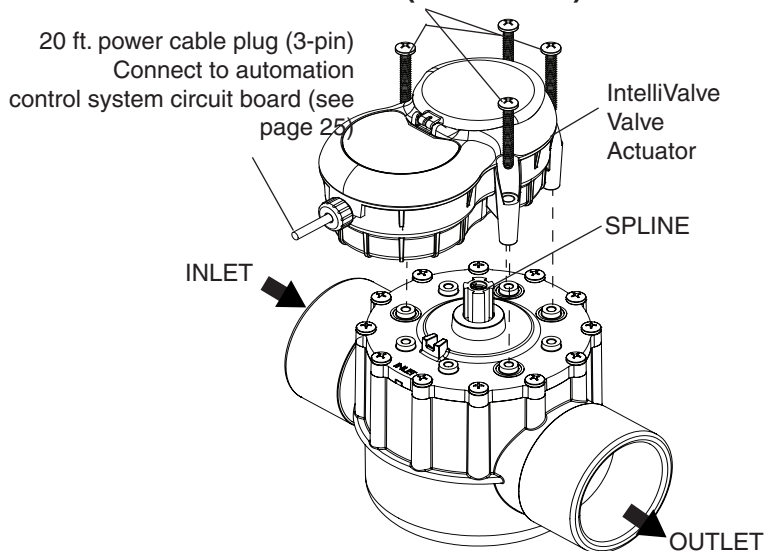
3. Mount the IntelliValve valve actuator onto the valve assembly and secure it with the four 2¼ inch mounting screws provided, as shown on the next page.

Note: DO NOT over tighten the mounting screws.



IntelliValve Valve Actuator Mounted on a 3-Port Valve assembly

Installing the IntelliValve® Valve Actuator (Continued)



IntelliValve Valve Actuator Mounted on a 2-Port Valve assembly

Operating the IntelliValve Valve Actuator (Basic Functions) - See IntelliValve User’s Guide (P/N 522301) for more information.

Mode Button: Press the MODE button (press and release) to toggle between AUTO/OFF, SET and SERVICE mode.

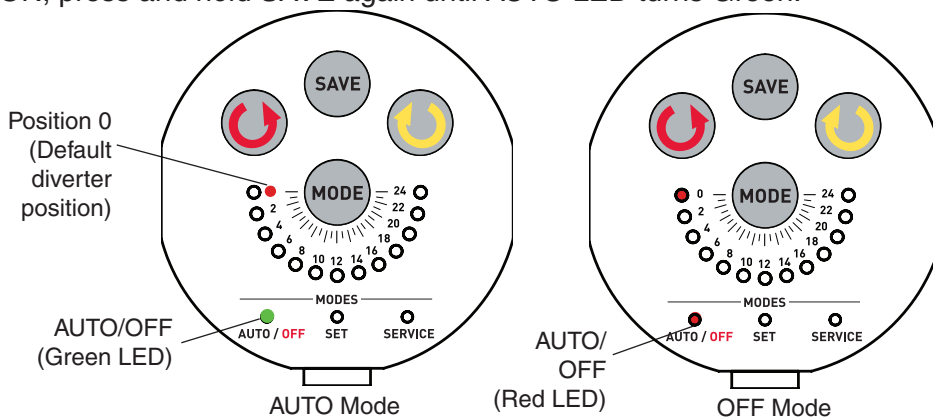
- **AUTO Mode:** Normal Operation
- **OFF Mode:** Disable IntelliValve Actuator function
- **SET Mode:** Set travel end points of valve diverter
- **SERVICE Mode:** Manual control - Temporary Settings

AUTO Mode (Green LED): The AUTO LED indicator is lit Green when the IntelliValve valve actuator is in normal operation.

- The actuator will move the diverter via the pool and spa automation control system.
- Only the current diverter position LED is lit while the diverter is in motion.
- Reversing Home Position from one end point to the other can only be done in AUTO MODE.

OFF Mode:

- (Red LED): OFF mode can only be enabled while in AUTO or SERVICE mode.
- Press and hold SAVE until AUTO LED turns Red.
- All other buttons are disabled during OFF mode.
- To return to ON, press and hold SAVE again until AUTO LED turns Green.



Connecting Power to the IntelliValve® Valve Actuator

After the IntelliValve Valve Actuator is mounted on to each of the valve assemblies, connect each IntelliValve Valve Actuator 24 V power cable to the 3-pin power sockets on the automation control system circuit board. The IntelliCenter Control System can control up to four IntelliValve automatic valve actuators via a RS-485 four conductor connection. For more information, see the IntelliCenter® Control Panel User's Guide (P/N 522990). Two of the standard valve outputs are dedicated to the pool/spa INTAKE and RETURN valves. Valve A or Valve B actuators are for general purpose use (solar, water-feature, in-floor cleaner, etc.).

Note: This device must be installed by a licensed or certified electrician or a qualified pool professional in accordance with the National Electrical Code (NEC), NFPA 70 or the Canadian Electrical Code (CEC), CSA C22.1.



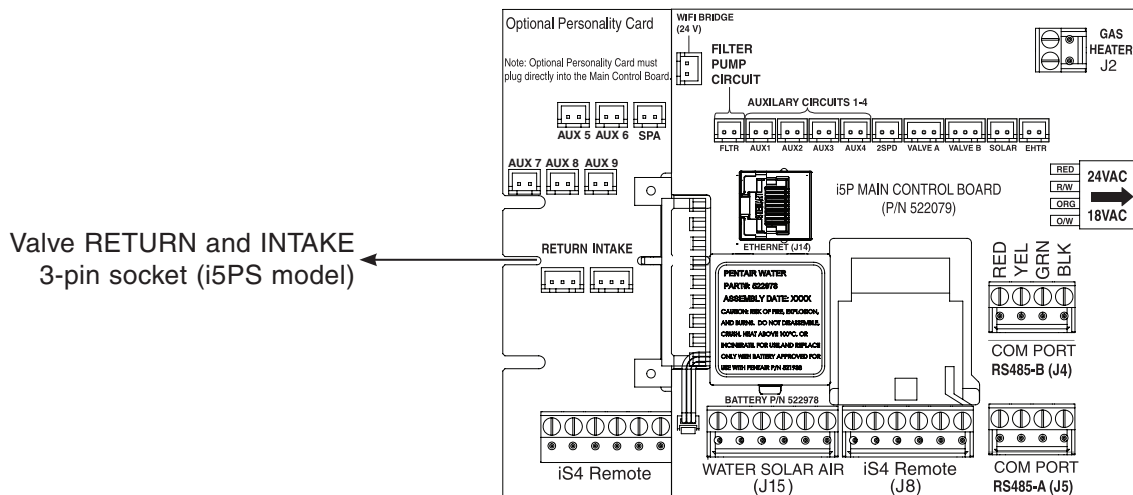
BEFORE INSTALLATION OR SERVICING THE INTELLIVALVE® VALVE ACTUATOR
Always disconnect power at the circuit breaker before servicing. Failure to do so could result in death or serious injury to service person, pool users or others due to electric shock.

To connect the IntelliValve Actuator Power Cable:

1. At the Load Center route the 20 ft. IntelliValve Valve Actuator power cable up through the Load Center 1" grommet and low voltage raceway to the IntelliCenter main circuit board (as shown on page 3).
2. Connect the Valve A actuator cable plug into the **INTAKE** (suction) 3-pin socket, and Valve B actuator cable plug into the **RETURN** three-pin socket on the IntelliCenter Control System circuit board. Excess cable can be coiled in the enclosure low voltage raceway left side compartment (see page 7). Do not coil the conductor in Load Center upper low voltage compartment. See IntelliValve Valve Actuator circuit board socket location below. For plumbing requirements, see Item 2 and 3 on page 54.

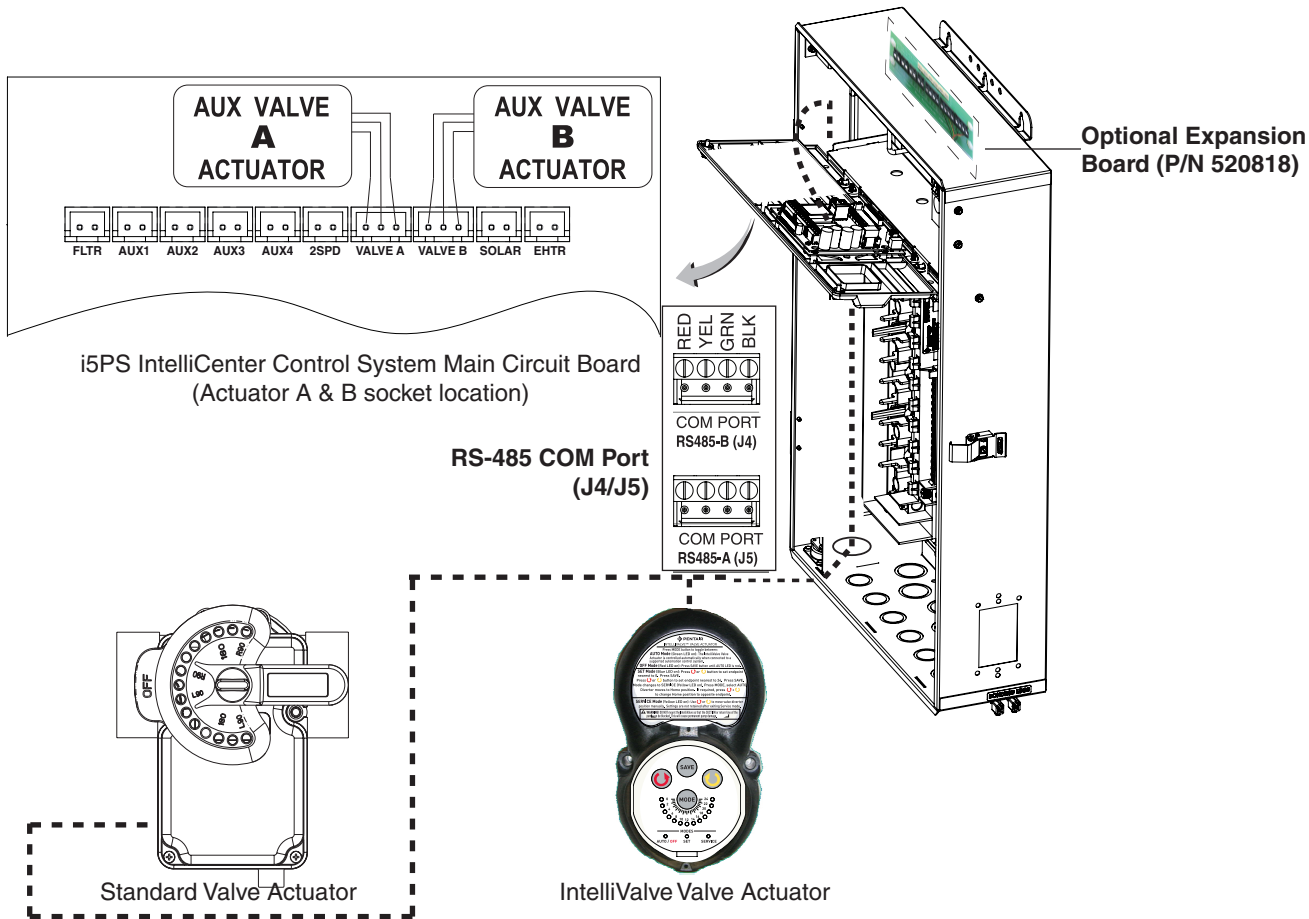
Note: IntelliCenter Control System Optional Valve Module Expansion Board: Using a Valve Module Expansion board (P/N 522038), three additional valve actuators (VALVE C, D and E) can be added to the system. The expansion board attaches to the edge of the IntelliCenter main circuit board. For installation and operation information, refer to the Valve Actuator Installation Guide (P/N 520294).

Test the IntelliValve Valve Actuator: Switch on power to the IntelliCenter Control System at the circuit breaker and verify that the IntelliValve valve actuator is operating correctly.



Model i5PS IntelliCenter Control System Main Circuit Board

Connecting Power to the IntelliValve® Valve Actuator

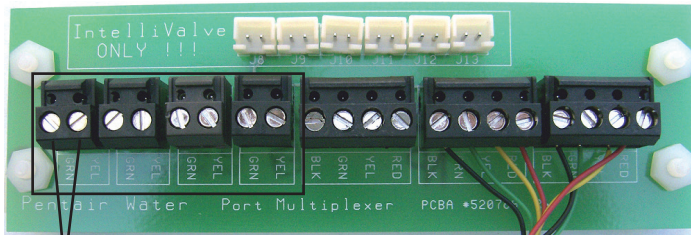


Connecting a Standard Actuator and IntelliValve Valve Actuator: Connect the three conductor cable connector from the actuator to Valve A or Valve B three-pin socket on the IntelliCenter Control System Personality circuit board. Route the cable into low-voltage raceway to the IntelliCenter Control System main circuit board.

RS-485 COM Port (J4/J5) Connection for Automation Control: Use the GREEN and YELLOW conductors on the IntelliValve actuator (remove the tie wraps from the wires). Connect the Green/Yellow conductors to the Green and Yellow screw terminals on RS-485 COM Port (J4 or J5) located on the Personality board. Route the IntelliValve cable into low-voltage raceway to the Expansion board mounted on the back of the Load Center.

Note: If there are no RS-485 COM Ports available, install the optional Expansion Board, see below.

Note: Optional Expansion Board (P/N 520818): Use the GREEN and YELLOW conductors on the IntelliValve actuator (remove the tie wraps from the wires). Connect the Green/Yellow conductors to one of the 2-pin Green and Yellow screw terminals located on the Expansion board. Route the IntelliValve cable into low-voltage raceway to the Expansion board mounted on the back of the Load Center.



IntelliValve conductors (Green/Yellow)

Optional Expansion Board (Located in the Load Center)

Installing Water Temperature Sensor

To install the water sensor:

1. Select a convenient location to mount the water sensor in the plumbing system between the filter pump and filter. Drill a 3/8" diameter hole in one side of the pipe,
2. Insert tip of sensor into the hole. Use the band clamp to secure the sensor to the pipe. Tighten the clamp just enough so that the o-ring begins to flatten. Do not overtighten
3. Fasten the cable to the plumbing with cable ties.
4. Run 22 AWG two-conductor cable (included in kit) between the sensor and the Load Center and Power Center. Route the cable up through the low voltage raceway to the circuit board, as shown below.
5. Cut off the excess conductor and the strip conductors ¼ inch.
6. Insert the conductors into the **WATER SENSOR** screw terminals (**J15**) on the main IntelliCenter Control System circuit board. For sensor circuit board screw terminal location see page 26.

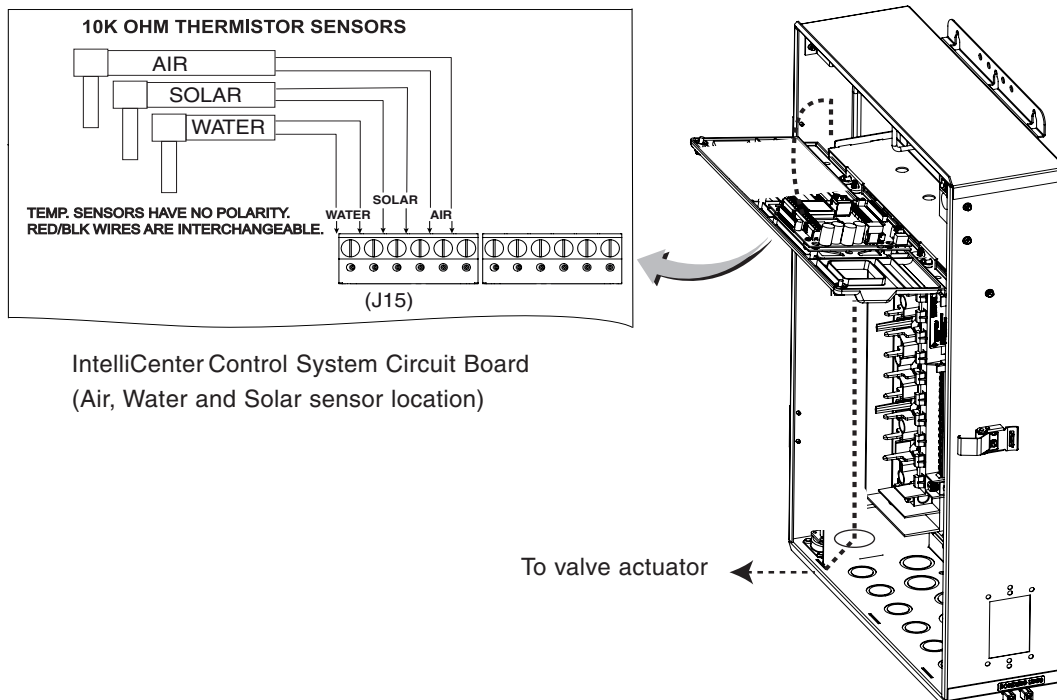
Installing Ambient Air Temperature Sensor (for freeze protection)

To install the air sensor:

1. Mount the sensor in the open air, in a shaded area, away from air conditioners. During the winter months, to avoid freeze damage to pool and spa equipment, mount the air sensor in a shaded area to assure proper temperature readings. The Home screen displays the current ambient air temperature.

Run 22 AWG two-conductor cable (included in kit) between the sensor and the Load Center or Power Center. Route the cable up through the low voltage raceway to the circuit board (as shown below).

3. Cut off the excess conductor and the strip conductors ¼ inch.
4. Insert the conductors into the **AIR** screw terminals (**J15**) on the IntelliCenter® Control System main circuit board. For sensor circuit board screw terminal location.



Installing the Solar Temperature Sensor (Optional)

Solar Panels Installation

- Be sure the maximum flow of water through the solar panels, a solar booster pump should be added if panels are installed at a very high elevation.
- It is recommended that the solar panels are mounted in a way that gravity will allow draining whenever the filter pump is not on.
- For systems with glazed panels, damage can occur from overheating if the filter pump is still running after the solar has turned off. To enable glazed panels to automatically drain whenever the solar turns off (even if the filter pump is still running), a 1/2" motorized solar drain valve should be plumbed from the solar feed line, through a check valve, to a zero psi point (such as pool fill line or jet air intake).

Solar Temperature Sensor Installation (as shown on page 26)

Run a two-conductor cable between the sensor and the IntelliCenter® Control System circuit board in the Load Center.

To install the solar sensor:

CAUTION! DO NOT DRILL HOLE AND CLAMP SENSOR INTO SOLAR PIPE.

- 1 Mount the sensor on a flat surface, with the same exposure to sun as the solar collectors (next to the collectors is recommended) or any sunny location. Do not let the sensor touch the panels. For glazed panels, install the sensor between collector and glazing.
- 2 If necessary, splice a two-conductor extension conductor to the sensor. Run two-conductor cable between the sensor and the enclosure. Use waterproof connectors to connect the sensor to the cable. Use twisted pair 20 AWG outdoor rated sensor wiring and be sure the conductor connections are protected from the environment. Use shielded cable for long runs or runs near other electrical wiring.
- 3 Cut off the excess conductor and the strip back conductors ¼ inch.
- 4 Insert the conductors into the **SOLAR SENSOR** screw terminals (**J15**) on IntelliCenter Control System circuit board. For sensor circuit board screw terminal location see page 26.

Temperature vs. Resistance Data

The IntelliCenter® Control System use 10k Ohm thermistor sensors. When the solar sensor is disconnected from the control system, the sensor will read 10k Ohm at 77° F (25°C). Refer to the following table for the resistance at other temperatures. An accurate reading should give a temperature setting that is accurate to $\pm 0.2^\circ$ C from 0 to 70 ° C.

Temp (°C)	Temp (°F)	Resistance (Ω)	Temp (°C)	Temp (°F)	Resistance (Ω)	Temp (°C)	Temp (°F)	Resistance (Ω)
-50	-58	669,500	25	77	10,000	95	203	787
-45	-49	471,500	27	80	9,298	96	205	761
-40	-40	336,200	29	85	8,250	99	210	701
-35	-31	242,500	30	86	8,056	100	212	679
-37	-35	280,100	32	90	7,331	102	215	646
-34	-30	234,100	35	95	6,530	104	220	596
-32	-25	196,300	38	100	5,826	105	221	587
-29	-20	165,100	40	104	5,326	107	225	552
-30	-22	176,800	41	105	5,209	110	230	510
-26	-15	139,300	43	110	4,663	113	235	472
-25	-13	130,300	45	113	4,367	115	239	444
-23	-10	118,000	46	115	4,182	116	240	438
-21	-5	100,200	49	120	3,757	120	248	389
-20	-4	97,000	50	122	3,602	125	257	341
-18	0	85,350	52	125	3,381	130	266	300
-15	5	72,910	54	130	3,047	135	275	264
-12	10	62,480	55	131	2,985	140	284	234
-9	15	53,640	57	135	2,750	145	293	208
-10	14	55,300	60	140	2,487	150	302	185
-7	20	46,230	63	145	2,251			
-5	23	42,300	65	149	2,083			
-4	25	39,910	66	150	2,041			
-1	30	34,560	68	155	1,854			
0	32	32,600	70	158	1,752			
2	35	30,000	71	160	1,686			
5	40	26,100	74	165	1,535			
5	41	25,400	75	167	1,480			
7	45	22,760	77	170	1,400			
10	50	19,900	79	175	1,278			
13	55	17,440	80	176	1,256			
15	59	15,700	82	180	1,168			
16	60	15,310	85	185	1,071			
18	65	13,480	88	190	980			
20	68	12,500	90	194	916			
21	70	11,880	91	195	900			
24	75	10,500	93	200	827			

Connecting a Standard Gas Heater to the Load Center

The IntelliCenter® Control System heater control uses low voltage dry contacts that can be connected to most gas heaters or heat pumps with 24 VAC control circuits. The following connection instructions are for gas heaters and heat pumps with low voltage thermostats. To connect the heater thermostat cable plug to the IntelliCenter Control System circuit board:

1. Switch OFF power to the heater.

⚠ CAUTION IMPORTANT: DO NOT disconnect or conductor around the thermostat, pressure switch, high limit switch, or other safety devices.

2. Remove the factory installed jumper from the heater's Fireman's Switch connector. At the heater, connect the conductors in accordance with heater manufacturer's instructions. For older heaters without instructions for remote operation, connect the conductors to the Fireman's switch connections in series with the thermostat, pressure switch, and other safety switches.

3. Run a two-conductor cable from the heater Fireman's Switch connector through the low voltage raceway to the Load Center or Power Center circuit board, as shown below.

NOTE: Use 221° F (105° C) temperature rated conductor for connection to the heater. When connecting conductors inside the heater, be cautious of HOT internal parts of the heater. Refer to the minimum temperature rating for conductors recommended by the manufacturer. See the heater owners manual for details.

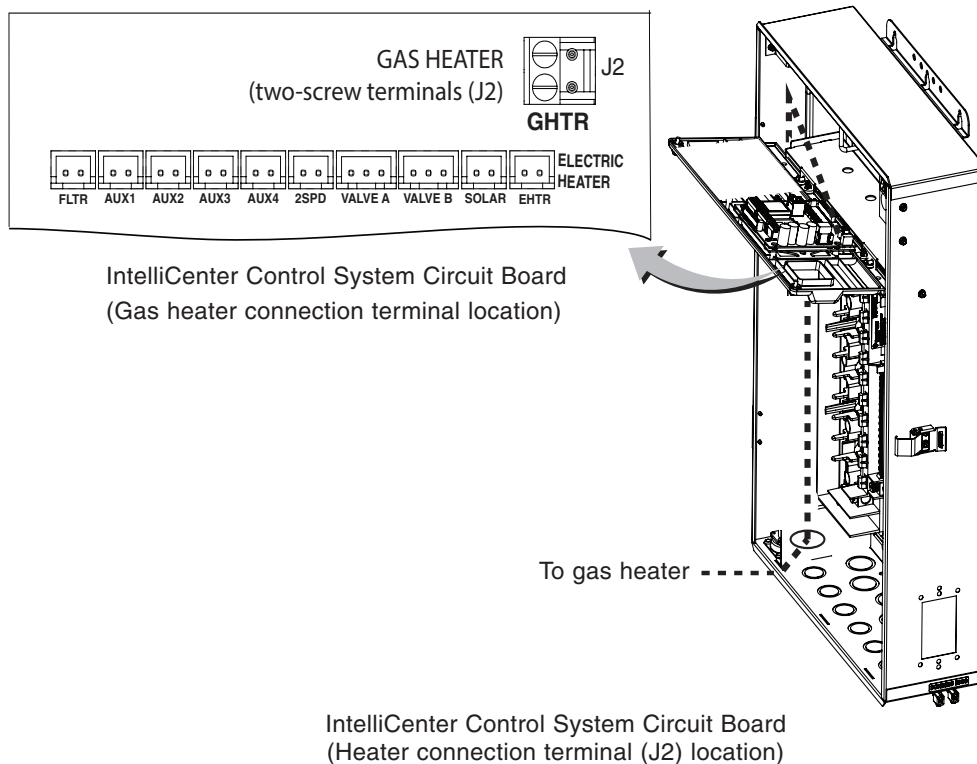
4. Strip back the conductors ¼ in.

5. Insert the conductors into the **GAS HEATER** two-screw terminals (**J2**) on the motherboard. For heater circuit board screw terminal location see below.

CAUTION: Be sure that the conductors from the heater to the IntelliCenter Control System Load Center are not near or touching any line voltage conductors in the heater. Failure to follow these instructions may cause the heater to malfunction.

6. Set the Power (Thermostat Select) switch to either Pool or Spa.

7. Set the heater's Pool and Spa thermostats to their maximum position.

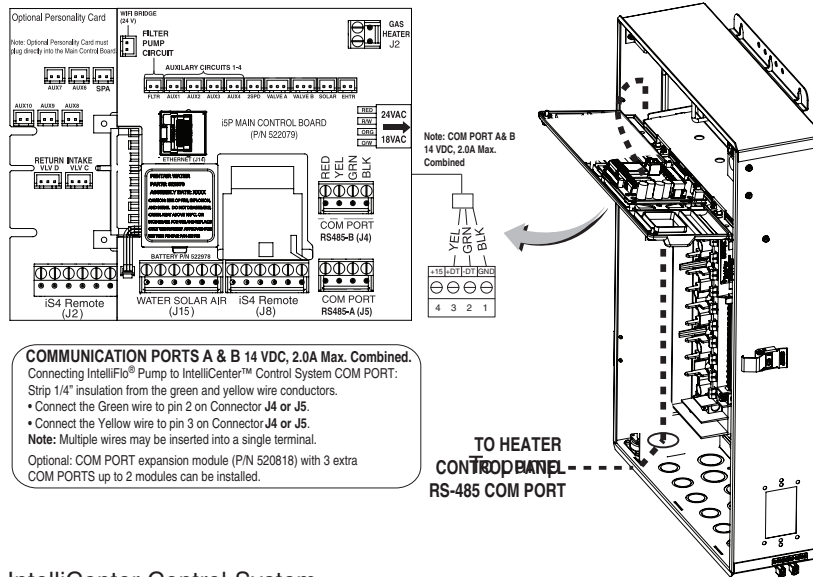


Connecting an IntelliFlo® Pump to the Load Center

A 50 ft 22 AWG four conductor low voltage RS-232 communication cable is provided with IntelliFlo pump. The IntelliCenter® Control System filter pump output is rated at 120 VAC, 15 AMP maximum. **NOTE:** Check the electrical rating marked on the pump motor before connecting it to the system.

To connect the IntelliFlo pump communication cable to the Load Center:

1. Switch AC power OFF to the Load Center at the main house circuit breakers.
2. Run the communication cable from the pump to the Load Center or Power Center.
3. Insert the cable conductors into the one of the plastic grommet fittings, located on the lower left side of the enclosure and pull the cable up through the low voltage to the circuit board, as shown below.
4. Strip back the outer jacket four inches. Strip back each conductor a ¼-inch.
5. **IntelliCenter Control System COM Port (J4 or J5):** Insert the conductors into the COM Port screw terminals located on the top of the IntelliCenter Control System circuit board (see diagram below). Secure the conductors with the screws. For wiring details, refer to the pin configuration shown below. **Note:** Multiple conductors may be inserted into a single screw terminal.



COMMUNICATION PORTS A & B 14 VDC, 2.0A Max. Combined.
 Connecting IntelliFlo® Pump to IntelliCenter™ Control System COM PORT:
 Strip 1/4" insulation from the green and yellow wire conductors.
 • Connect the Green wire to pin 2 on Connector J4 or J5.
 • Connect the Yellow wire to pin 3 on Connector J4 or J5.
Note: Multiple wires may be inserted into a single terminal.
 Optional: COM PORT expansion module (P/N 520818) with 3 extra COM PORTS up to 2 modules can be installed.

IntelliCenter Control System
 COM PORT (J5 or J6)
 Screw Terminal

	COM Port screw terminal connector	IntelliFlo Pump (2-wire cable)
	2 (GRN)	GREEN (Pin 6)
	3 (YEL)	YELLOW (Pin 7)

IntelliFlo pump communication cable pin out

Connecting a Pentair UltraTemp® and Hybrid™ Heat Pump to the Load Center

Be sure to check the UltraTemp Heat Pump terminal block conductor colors and pinouts (located on the back of the Auto Set board) before connecting it to the Load Center COM port. The See the wiring table below for the pin configuration.

IMPORTANT: On the UltraTemp Heat Pump AutoSet circuit board ONLY CONNECT PIN 3 (YELLOW) and PIN 2 (GREEN) to the IntelliCenter Control System COM port pins YELLOW and GREEN respectively. Do not connect pin 1 or pin 4 on the AutoSet board or the COM port. These pins are not used.

Wiring Description

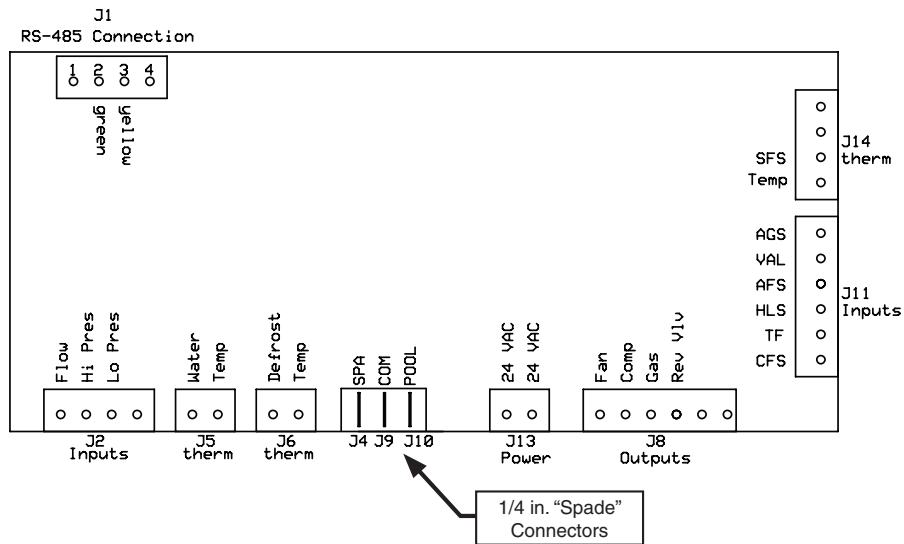
COM Port Wire Color (J4 / J5)	Description	UltraTemp Heat Pump/UltraTemp and Hybrid Heat Pump (J1) Pin Number and Wire Color
PIN 4 (RED) (DO NOT USE)	+15 VDC	PIN 4 (DO NOT USE)
PIN 3 (YELLOW)	+ DATA	PIN 3 (YELLOW)
PIN 2 (GREEN)	- DATA	PIN 2 (GREEN)

Connecting a Pentair Hybrid Heat Pump to the Load Center

Be sure to check the Hybrid Heat Pump terminal block conductor colors and pinouts before connecting it to the Load Center COM port. The See the Hybrid Heat Pump wiring table below for the pin configuration.

IMPORTANT: On the Hybrid Heat Pump circuit board (J1) ONLY CONNECT PIN 3 (YELLOW) and PIN 2 (GREEN) to the IntelliCenter® Control System COM port pins YELLOW and GREEN respectively. Do not connect pin 1 or pin 4 on the AutoSet board or the COM port. These pins are not used.

Wiring Description



Connecting the IntelliChlor® SCG Power Cord to the Enclosure Socket

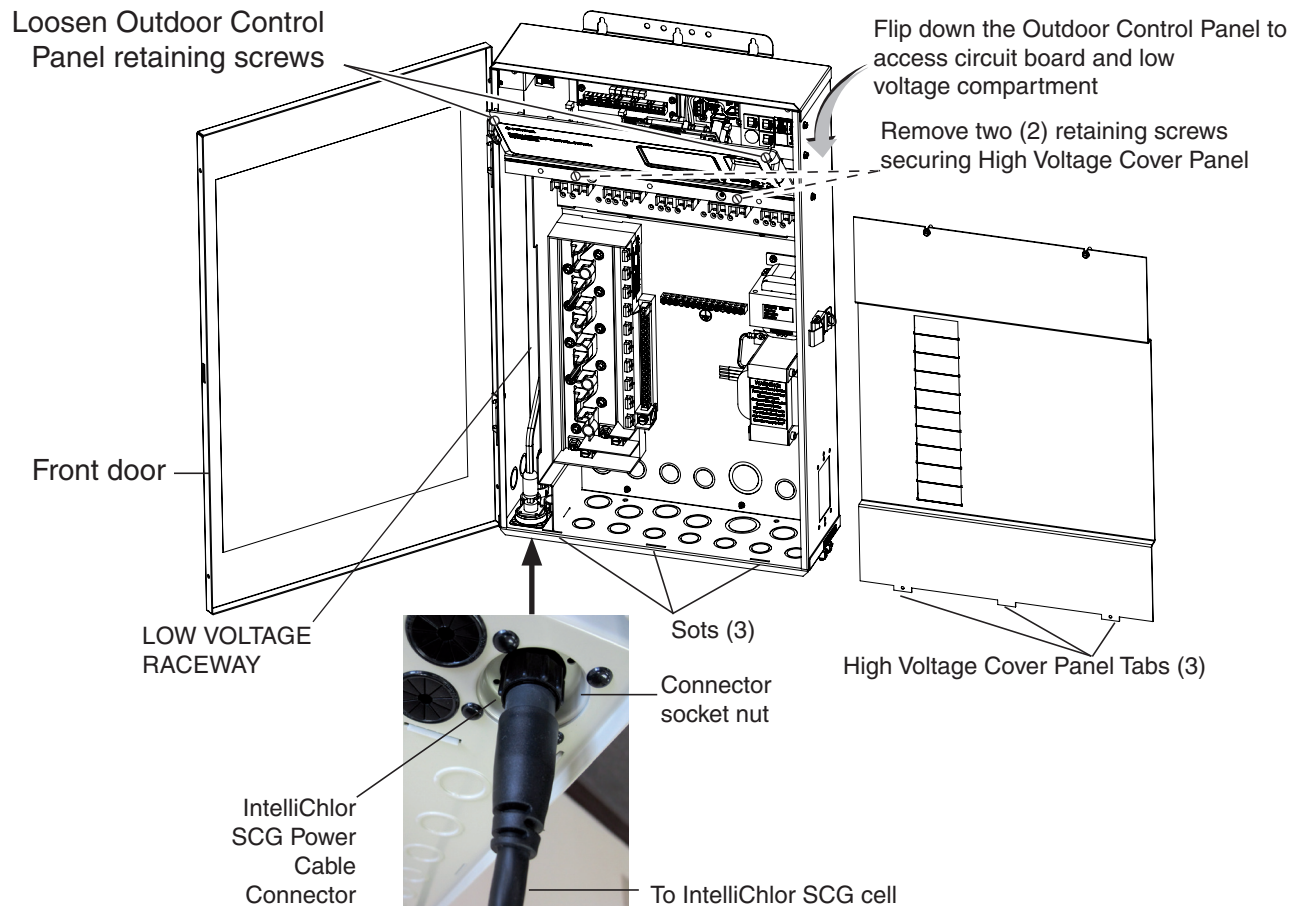
The IntelliChlor SCG cell power cord is connected to the socket on the bottom of the IntelliCenter® Control System Load Center (shown below) and Power Center enclosure.

WARNING BEFORE REMOVING THE HIGH VOLTAGE COVER PANEL FROM THE LOAD CENTER OR POWER CENTER, switch the main power **OFF** into the home at the main circuit breaker box and also switch **OFF** the main power to the Load Center/Power Center.

WARNING TO AVOID AN ELECTRICAL HAZARD AND EQUIPMENT DAMAGE TO THE ENCLOSURE AND INTELLICHLOR SCG CELL: FIRST DISCONNECT AC POWER TO THE ENCLOSURE BEFORE CONNECTING THE INTELLICHLOR SCG CELL POWER CABLE TO THE ENCLOSURE SOCKET.

To connect the IntelliChlor SCG power cord to the Load Center or Power Center:

1. Switch OFF AC power to the enclosure at the main house panel circuit breaker.
2. Unlatch the front door latch and open the front door. Remove the two retaining screws from the High Voltage Cover Panel and remove the panel.
3. Loosen the two retaining screws securing from the top edge of the Outdoor Control Panel. Fold down the Outdoor Control Panel to access the circuit board sockets connectors for the electrical connections.
4. Align the four pins of the IntelliChlor cell power cord connector with the socket on the bottom of the enclosure and insert the cord connector into the socket.
5. Rotate the socket nut until it locks the connector in place. Do not over tighten the nut (hand tighten only).
6. Proceed to “Connecting IntelliChlor® SCG COM Port Cable” on next page.



IntelliCenter Control System

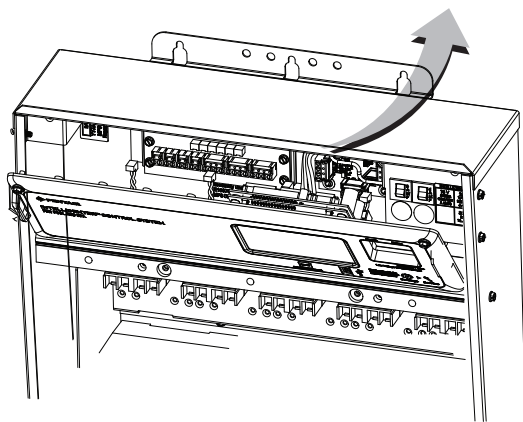
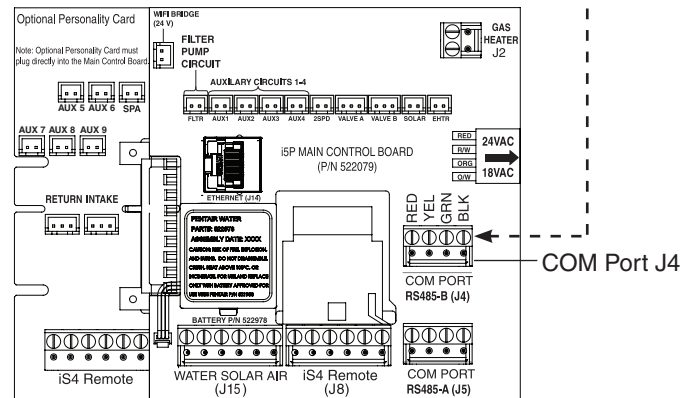
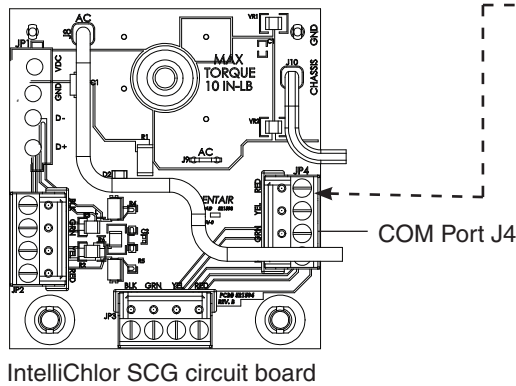
Connecting the IntelliChlor® SCG Communication Cable to a COM Port

The IntelliChlor SCG communicates from the IntelliCenter® Control System circuit board to the IntelliChlor SCG circuit board via an RS-485 communications four conductor, 22 AWG or larger cable. This cable (provided in kit) connects to both the IntelliChlor (SCG) circuit board COM port terminal and the IntelliCenter Control System circuit board COM port.

WARNING TO AVOID AN ELECTRICAL HAZARD AND EQUIPMENT DAMAGE TO THE ENCLOSURE AND INTELLICHLOR CELL: FIRST DISCONNECT AC POWER TO THE ENCLOSURE BEFORE CONNECTING THE INTELLICHLOR COMMUNICATION CABLE.

To connect the IntelliChlor SCG COM port cable (see page 34 for connector pinouts/color match):

- First, connect the cable to **COM port J4 on the IntelliChlor SCG circuit board**, then connect the other end of the cable to the IntelliCenter Control System COM port (**J4 of J5**) screw terminal located on the IntelliCenter Control System circuit board (see screw terminal location below). Note: Any of the three COM ports on the IntelliCenter Control System circuit board can be used for the IntelliChlor SCG communications cable.
- After electrical connections have been completed, close the Outdoor Control Panel and tighten the two retaining screws. Reinstall the High Voltage Panel: Insert the panel's three tabs into the lower slots on the enclosure. Secure the panel with the two retaining screws. Close the front door and secure with the latch. See page 34.
- Switch ON AC POWER** to the load center at the circuit breaker.



IntelliCenter Control System Load Center/Power Center
(with IntelliChlor SCG option) (Control Panel not shown)

Connecting a Salt Chlorine Generator to the Load Center or Power Center

Be sure to check each conductor color between the salt chlorine generator and the IntelliCenter® Control System Load Center (with SCG option) as shown in the following wiring tables.

Commonly used salt chlorine generator wiring is shown below. However, but you should still verify with the manufacturers documentation. Failure to connect the salt chlorine generator properly can permanently damage the IntelliCenter Control System and/or the salt chlorine generator.

Wiring Description

(IntelliChlor® SCG Circuit board COM Port to IntelliCenter Control System COM Port J4/J5)

SCG COM Port wiring color connection	Description	From IntelliChlor SCG Power Center COM Port #1
RED	+15 VDC	RED
YELLOW	+ DATA	YELLOW
GREEN	- DATA	GREEN
BLACK	GROUND	BLACK

Wiring Description (Hayward® or Jandy® Load Center COM Port)

Hayward® or Jandy® Load Center COM port wiring color connection	Description	IntelliChlor Salt Chlorine Generator
RED	+15 VDC	RED
YELLOW	+ DATA	BLACK
GREEN	- DATA	YELLOW
BLACK	GROUND	GREEN

Wiring the IntelliChem® Controller to the Load Center

Be sure to check each conductor color between IntelliChem Controller and the IntelliCenter Control System Load Center and/or Power Center as shown in the following wiring table.

Wiring Description (IntelliChem COM Port to IntelliCenter Control System COM Port)

IntelliChem Controller COM Port (J7) wiring color connection	Description	From IntelliCenter Control System COM Port (J4 / J5)
RED (DO NOT USE)	+15 VDC	RED (DO NOT USE)
YELLOW	+ DATA	YELLOW
GREEN	- DATA	GREEN
BLACK	GROUND	BLACK

Wiring the IntelliChlor® SCG Transformer to Load Center Filter Pump Relay

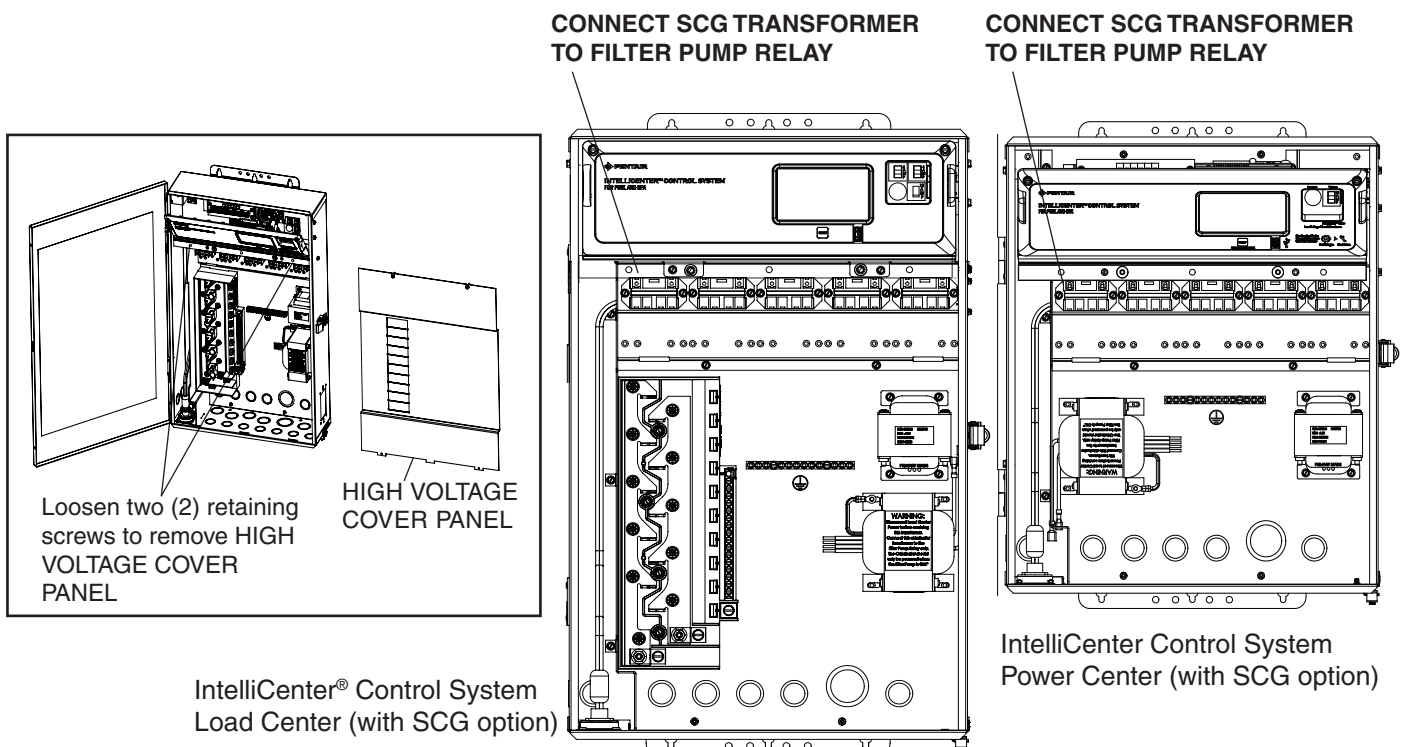
IMPORTANT! IntelliChlor SCG AC transformer wiring Instructions: When using the IntelliCenter® Control System with the IntelliChlor SCG option, be sure the IntelliChlor SCG AC transformer conductors are connected to the **LOAD SIDE OF THE FILTER PUMP RELAY** located in the load center (see page 36). This ensures that the IntelliChlor SCG cell produces chlorine only when the pool/spa filter pump is on.

⚠ WARNING BEFORE REMOVING THE HIGH VOLTAGE COVER PANEL FROM THE LOAD CENTER OR POWER CENTER, switch OFF the power at the house main circuit breaker box.

⚠ WARNING TO AVOID AN ELECTRICAL HAZARD AND EQUIPMENT DAMAGE TO THE ENCLOSURE AND INTELLICHLOR CELL: FIRST DISCONNECT AC POWER TO THE ENCLOSURE BEFORE CONNECTING THE INTELLICHLOR SCG COMMUNICATION CABLE.


To connect the IntelliChlor (SCG) transformer conductor to the main filter pump relay:

1. Switch OFF AC power to the enclosure at the main house panel circuit breaker.
2. Unlatch the front door latch and open the front door. Remove the two retaining screws from the High Voltage Cover Panel and remove the panel.
3. Loosen the two retaining screws securing from the top edge of the Outdoor Control Panel. Fold down the Outdoor Control Panel to access the circuit board sockets connectors for the electrical connections. Remove the panel from the enclosure, as shown below.
4. **Locate the FILTER PUMP RELAY. Connect the IntelliChlor SCG transformer conductors to the LOAD SIDE of the relay as shown on the next page.**
5. After electrical connections have been completed, reinstall the High Voltage Panel: Insert the panel's three tabs into the lower slots on the enclosure. Secure the panel with the two (2) retaining screws. Close the front door and secure with the latch.
6. **SWITCH ON AC power** to the load center.



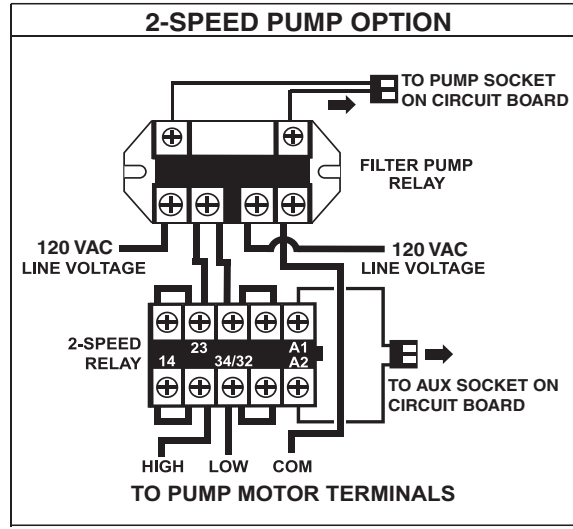
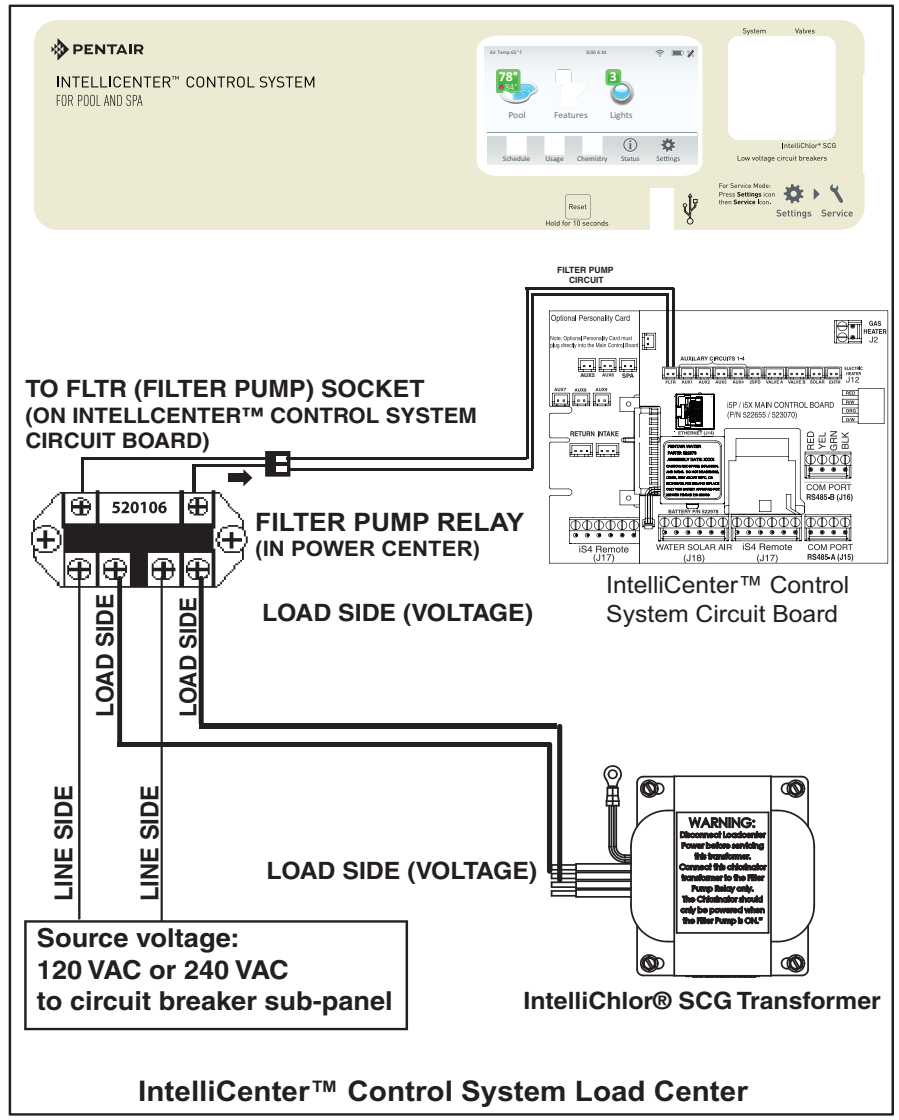
Wiring the IntelliChlor® SCG Transformer to Load Center Filter Pump Relay

Connect IntelliFlo® Pump AC power cord to 240 Volt 20 AMP direct circuit breaker in IntelliCenter load center or separate sub-panel.



IntelliFlo® Pump communication cable connects to RS-485 COM port on IntelliCenter load center circuit board.

WhisperFlo® 2-Speed Pump AC power cord connect to LOAD SIDE of Filter Relay (wired for 120 or 240 VAC)

IntelliCenter® Control System Load Center - IntelliChlor® SCG Connection Diagram

Rewiring the IntelliChlor® SCG Transformer for 120VAC

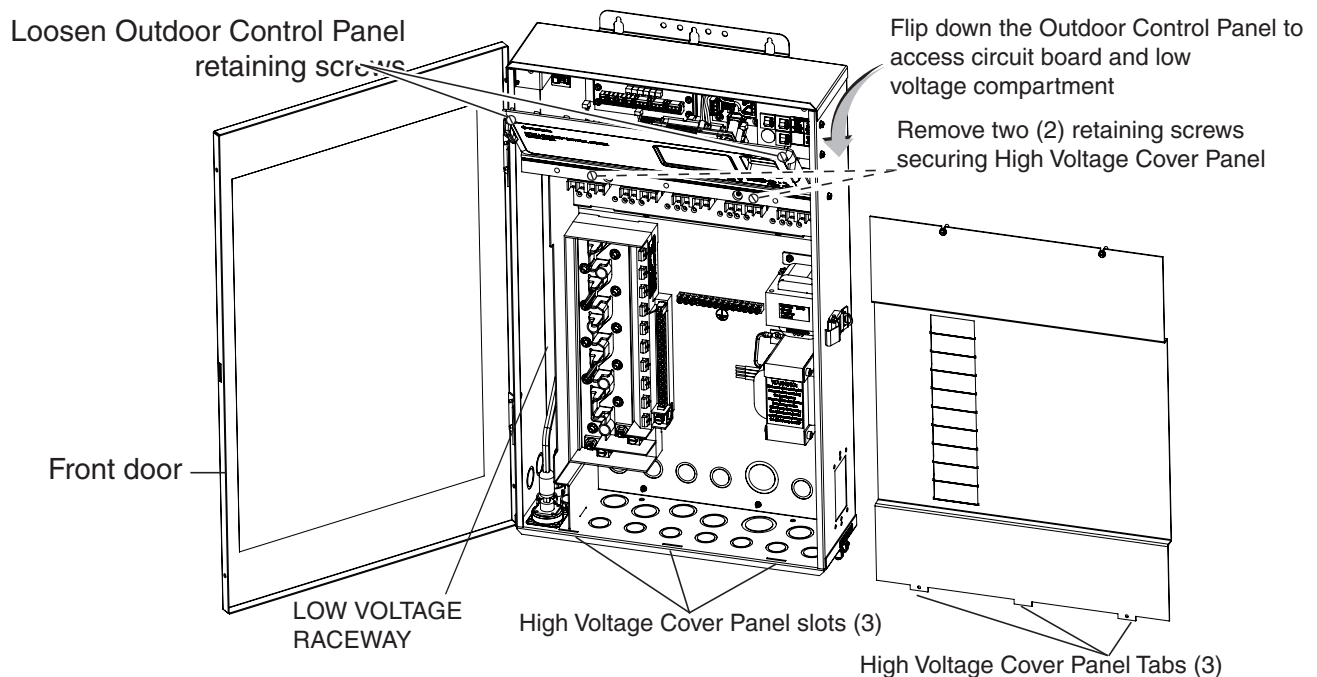
The IntelliChlor SCG power supply transformer is located in the IntelliCenter® Load Center and Power Center can be wired for 240 VAC at 1AMP (factory installed) or 120 VAC at 2AMP 50/60 Hz. The IntelliChlor SCG transformer is pre-wired at the factory for 240 VAC service.

To rewire the IntelliChlor SCG transformer and for 120 VAC:

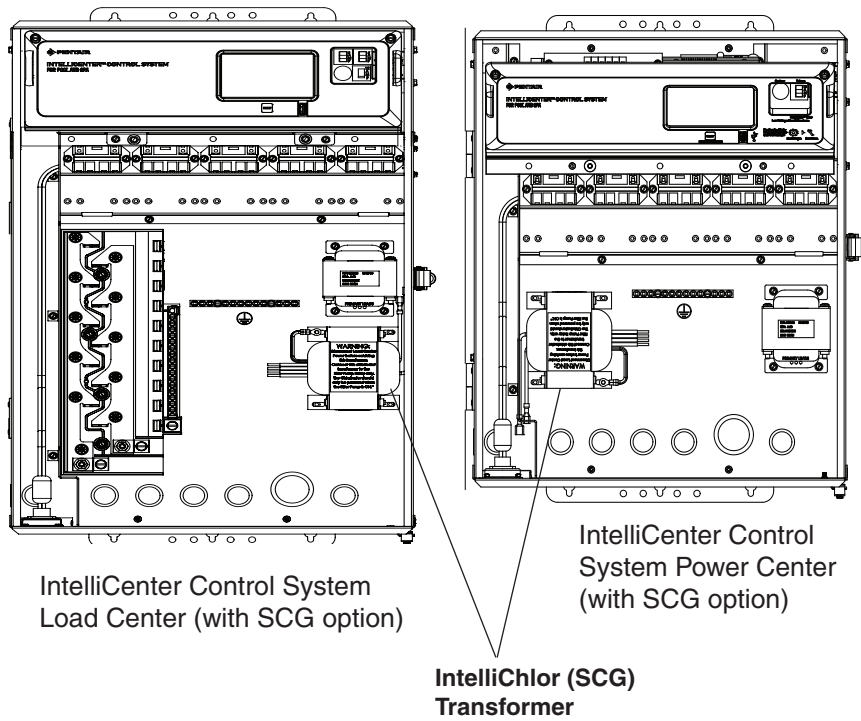


BEFORE REMOVING THE HIGH VOLTAGE COVER PANEL FROM THE LOAD CENTER OR POWER CENTER ENCLOSURE switch OFF the power at the house main circuit breaker box.

1. Switch OFF AC power to the enclosure at the main house panel circuit breaker.
2. Unlatch the front door latch and open the front door. Remove the two retaining screws from the High Voltage Cover Panel and remove the panel.
3. Loosen the two retaining screws securing from the top edge of the Outdoor Control Panel. Fold down the Outdoor Control Panel to access the circuit board sockets connectors for the electrical connections. Remove the panel from the enclosure, as shown below.
4. **Rewire the SCG transformer for 120 VAC as shown in the wiring diagram on next page.**
5. Reinstall the High Voltage Panel: Insert the panel's three tabs into the lower slots on the enclosure. Secure the panel with the two (2) retaining screws. Close the front door and secure with the latch.
6. **SWITCH ON AC power** to the load center.



Rewiring the IntelliChlor® SCG Transformer for 120VAC (Continued)



IntelliChlor® SALT CHLORINE GENERATOR OPTION FOR OUTDOOR USE ONLY	
INPUT: 120 VAC AT 2.5 A, 50/60 Hz 240 VAC AT 1.3 A, 50/60 Hz <i>WIRING CONFIGURATION IS FACTORY SET FOR 240V.</i>	
TRANSFORMER WIRING	
240V Line Voltage	Transformer Leads
120V	
120V	
120V Line Voltage	Transformer Leads
120V	
NEUTRAL	

Section 2

IntelliCenter® Control System Start Up

System Start-Up

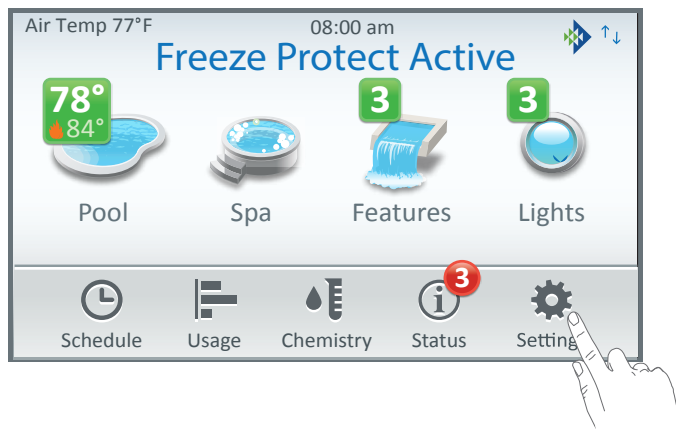
Note: The following information describes how to configure the IntelliCenter Control System using the step-by-step Setup Wizard. For more detailed information refer to the IntelliCenter® Control System User's Guide (P/N 522990).

Power On the Load Center and/or Power Center

1. After all the necessary pool and spa equipment has been connected to the Load Center/Power Center, replace and secure the High Voltage Panel on to the front of the Load Center and/or Power Center.
2. Switch on the main circuit breakers to apply power to the Load Center and/or Power Center.

Start the Setup Wizard

1. The IntelliCenter® Control System Outdoor Control Panel will be powered on.
2. From the Home screen tap **Settings > Advanced system Configuration > Wizard**.
3. Follow the screen prompts to configure the system. When finished save the system configuration. The system is now ready for operations. For more information refer to the IntelliCenter® Systems User's Guide.
4. Continue on next page. See *Initial System Power Up*.



About the Setup Wizard: The IntelliCenter Control System Setup Wizard provides step-by-step screens to assist in setting up the pool/spa equipment. To complete the Setup Wizard takes about 10 minutes. If you are unsure how to answer a question, you can skip the question and continue with the setup, then go back to the Wizard later to change or edit the setup information.

Internet Connection and adding a new account for www.intellicenter.com: After the Setup Wizard has been successfully completed, go to Settings > Pentair User Portal. From there you can setup either a Wireless or Ethernet connection to connect to the Internet and add a new account or login using an existing account, which includes setting up a password, pool system's owner's name, address and contact information. This account allows access to www.intellicenter.com for remote access to the pool system via a smartphone or PC.

Setup Wizard [Advanced System Configuration]

Setup Wizard Screen Navigation:

Note: While in the Configuration Wizard, if a power outage occurs or the screen times out, the system will display the Home Screen. Any changes made in the Wizard up to that occurrence will be saved.

What is your Zip code / Location	
Zip Code	Brooklyn, NY United States
Latitude	40.65°
Longitude	-73.94°
Time Zone	UTC/GMT -5
Eastern Time (US & Canada)	
Help/Menu	Exit Wizard
Back/Home	Next/Summary

- ❶ Progress Bar Indicator: The Blue Configuration Wizard progress bar indicates how many option have been completed.

Help ?: Brief informative information for the current Setup Wizard screen.

- ❷ **Cancel (Exit Wizard?):** Tap the Cancel button while in the Setup Wizard to display the following dialog screen:

- ❸ **No** to remain in the Setup Wizard and return to previous Wizard screen and continue with the Setup Wizard configuration.

- ❹ **Yes** to save any changes made up to this point, exit the Setup Wizard and return to the Home Screen.

- ❺ **Discard:** Discard all changes made in the Setup Wizard, exit the Setup Wizard and return to the Home screen.

Exit Wizard?

No: Remain in the Setup Wizard and return to previous Wizard screen and continue with the Setup Wizard configuration.

Yes: Save any changes made up to this point, exit the Setup Wizard and return to the Home screen.

Discard: Discard all changes made in the Setup Wizard, exit the Setup Wizard and return to the Home screen.

Back: Return to the previous screen.

Next: Move to the next Wizard screen or item settings.

Example: Before each Wizard configuration screen a YES/NO option screen is displayed. Tap YES then NEXT to enter the item configuration screen. Tap NO then NEXT to continue to the next option.

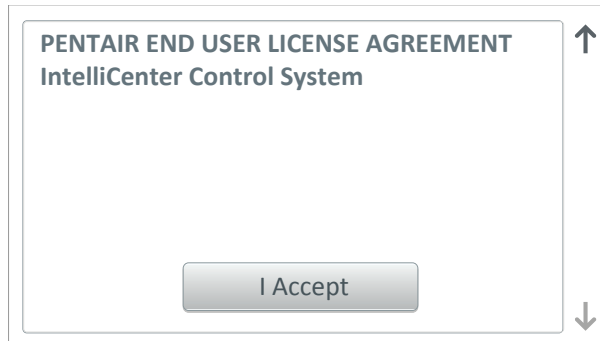
Note: Number of Configured Devices: Displayed on the first of each Wizard option screen is the number of devices that have been configured. As you progress through the Wizard the device message corresponds to how many options have been updated.

Setup Wizard [Advanced System Configuration]

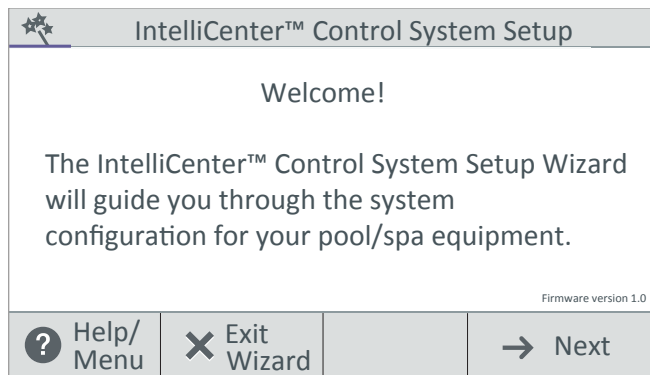
Initial System Power Up

After all required pool/spa equipment has been connected to the IntelliCenter Control System, apply power to the system at the main panel circuit breaker. Upon the initial system power up, the outdoor LCD control panel will display the PENTAIR END USER LICENSE AGREEMENT. Please read this agreement. To continue, tap the Down arrow on the right side of the screen to scroll down to the end of the agreement and tap **I Accept** to accept the agreement. The Home screen is then displayed.

Note: The Pentair End User License Agreement is displayed only one time after the initial system power up.



Wizard Setup: To start the Wizard system setup, from the Home screen, tap **Settings > Advanced System Configuration > Wizard**. The following screen is displayed.

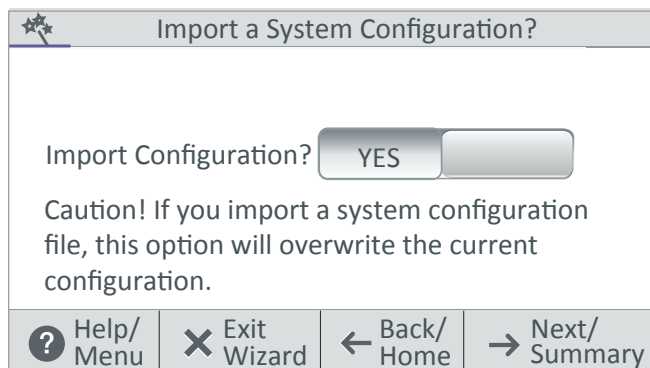


IntelliCenter Control System Setup

Wizard: The first Setup Wizard configuration screen, Displays the current system firmware version.

Next: Tap Next to continue with the Setup Wizard and display the Detected Hardware screen.

Cancel: Tap Cancel to exit the Setup Wizard and return to the Home screen.



Import System Configuration:

Yes: Use this option to Import a system configuration file (.CFG) from a USB device plugged into the USB Port on the front of the IntelliCenter Control System Outdoor control panel. Note: This option will overwrite the current system configuration.

No: Tap No then Next to continue with the Setup Wizard.

Note: See page 84 for information about Over-The-Air IntelliCenter Control System softwares updates.

Setup Wizard [Advanced System Configuration]

Import for USB: Insert a USB device into the USB Port on the IntelliCenter® Control System Outdoor or Indoor control panel. Tap Import from USB and navigate to the system configuration file (.CFG). Follow the on screen instructions to import the system configuration files plugged into the USB Port on the Outdoor or Indoor control panel.

Local or copy from Remote: These options will overwrite the system configuration using a configuration file. Navigate to the appropriate folder and select the Configuration file (.cfg) to import.

Detected Hardware			
Setup had detected the following hardware:			
Personality: iSPS			
Expansion Module1: None			
Expansion Module2: None			
Expansion Module3: None			
Expansion Module4: None			
Help/ Menu	Exit Wizard	Back/ Home	Next/ Summary

Detected Hardware: Displays the installed IntelliCenter Control System Personality main circuit board and Expansion Cards (if applicable).

Next: Tap Next to continue to the Zip Code / Location settings screen.

Back: Tap Back to go to the previous screen.

Cancel: Tap Cancel to exit the Setup Wizard and display the Exit Wizard screen (No, Yes, Discard options).

What is your Zip code / Location	
Zip Code	Brooklyn, NY
11220	United States
Latitude	40.65°
Y Coordinate	
Longitude	-73.94°
Y Coordinate	
Time Zone	UTC/GMT -5
Eastern Time (US & Canada)	
Help/ Menu	Exit Wizard
Back/ Home	Next/ Summary

Update date & Time: Tap Yes and Next to update the system date and time.

Clock Mode: Select either 12 hour or 24 hour mode.

Daylight Saving Time: Select ON to automatically set the yearly daylight saving time for your location. Select NO to manually change the daylight savings time for your location. Converting a 12 hr. time to 24 hr. (Military time) is from 1:00 PM to 11:59 PM, then add 12 hours, and from 12:00 AM (midnight) to 12:59 AM subtract 12 hours.

Would you like to set the Date & Time?	
Jan. 12, 2018 6:60 pm	
Update Date & Time	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Help/ Menu	Exit Wizard
Back/ Home	Next/ Summary

Zip Code / Location Screen: After the IntelliCenter Control System has verified the login information successfully, the Location screen is displayed. Tap any setting to update the location information. Tap Zip Code to enter your Zip code for your location. The US Zip code information will automatically populate the Latitude and Longitude coordinates and Time Zone via a Broadband Internet connection.

Note: If the PC time and date do not match the time and date displayed on the Home screen. Match the PC time and date to the IntelliCenter Control System.

Location: The US Zip code, Latitude, and Longitude coordinates and Time Zone information will automatically populate via a Broadband Internet connection. You can also enter the information manually.

Time Zone (UTC): UTC-05:00 (Brooklyn New York) is a time offset that subtracts five hours from Coordinated Universal Time (UTC). In North America, it is observed in the Eastern Time Zone during standard time, and in the Central Time Zone during the other eight months (see Daylight saving time). The western Caribbean uses it year round.

Note: Time and date synchronization for all systems may take a few minutes.

Setup Wizard [Advanced System Configuration]

Time Set: Tap the Time Set time button and set the current time for your location. Tap Check to save and return to the previous page.

Date Set: Tap the Date Set time button and set the current date. Tap Check to save and return to the previous page.

Offset (min/month): Select ON to offset the current time (minutes) and month.

Configure AUX CIRCUITS: Setup system AUX circuits.

Create AUX Circuit: Tap Yes then Next to configure an AUX Circuits. Tap No then Next to continue to Configure Feature Circuits.

Select an AUX Circuit: Tap on an AUX Circuit name. From the next screen configure the AUX settings:

Circuit Function: Select the Circuit Function.

Circuit Name: Select a Circuit name from the pre-defined list of custom circuits names, then tap Check to save and return to the previous screen.

Visible in Features: Yes/No. Select Yes to display the selected circuits in the Feature screen on Home screen.

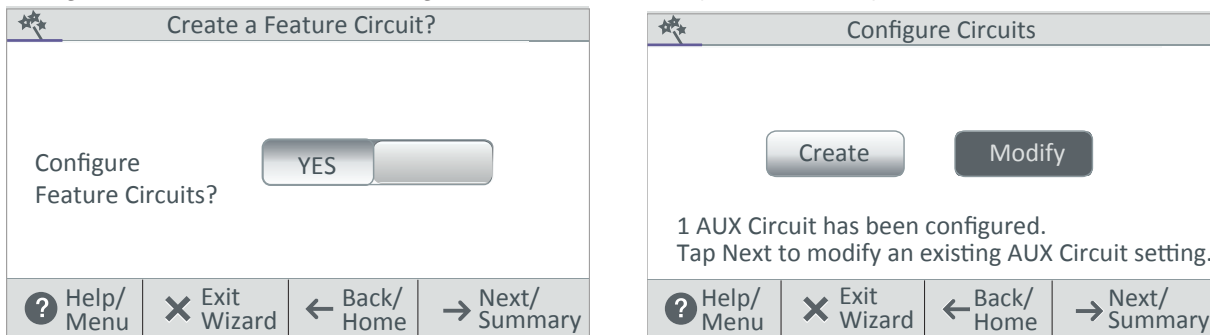
Egg Timer: Select ON to select a manual time-out of 0-12 hours for this circuit. The Egg Time is a specified time delay (hrs/mins) for the circuit, once it is turned on.

Freeze Protection: Assign freeze protection for this circuit.

Create / Modify: Tap Next after the first AUX Circuit has been configured. The Configure Circuits screen is displayed. Select either Create or Modify to create a new circuit or modify an existing AUX Circuit. After you have configured all of the available AUX Circuits, tap Next to continue to Feature Circuits.

Setup Wizard [Advanced System Configuration]

Configure Feature Circuits: Configure Feature circuits (maximum 32).



Create / Modify: Tap Next after the first AUX Circuit has been configured. The Configure Circuits screen is displayed. Select either Create or Modify to create a new circuit or modify an existing AUX Circuit. After you have configured all of the available AUX Circuits, tap Next to continue to Configure Valves.

Create Feature Circuit: Tap Yes then Next to configure Feature Circuits. Tap No then Next to continue to Configure Feature Circuits.

Select a Circuit Function: Tap on either Generic or Spillway for the circuit function. From the next screen configure the Feature Circuit settings:

Circuit Function: Select either Generic or Spillway.

Circuit Name: Select a Circuit name from the predefined list of custom circuits names, then tap Check to save and return to the previous screen.

Visible in Features: Yes/No. Select Yes to display the selected circuits in the Feature screen on Home screen. Tap Next to continue.

Egg Timer: Select ON to select a manual time-out of 0-12 hours for this circuit. The Egg Time is a specified time delay (hrs/mins) for the circuit, once it is turned on.

Freeze Protection: Assign freeze protection for this circuit.

VALVES

Configure Valves: Tap Yes then Next to configure a new valve type. Tap No then Next to continue to Configure IntelliChlor SCG.

Intake (standard), Return (standard): To change the valve name, tap Intake or Return. Tap Valve name, enter the new valve name then tap Check to save and return to the previous screen.

Valve A and Valve B (Model i10D): If the optional Valve Module installed, Valve A and Valve B are displayed. To change the valve name, and assign a circuit to Valve A and Valve B, tap Valve A or Valve B on this screen.

Valve Name: To change the valve name, tap Intake or Return. Tap Valve name, enter the new valve name then tap Check to save and return to the previous screen.

Assigned Circuit for Valve A or Valve B: Tap unassigned, and select an AUX circuit for the valve. Tap Check to return to the previous screen. Tap Valve name, enter the new valve name then tap Check to save and return to the previous screen.

Setup Wizard [Advanced System Configuration]

PUMPS

Tap Yes then Next to configure a new pump (Tap No then Next to continue to Configure Heaters).
Create: Tap Create then Next to select a new pump type (IntelliFlo® VF pump, IntelliFlo VS pump, IntelliFlo VSF pump, Single Speed, Dual Speed) and configure the pump settings.

Modify: Tap Modify then Next to display the list of configured pumps. Tap New Pump to add a pump. From this screen you can add or delete pumps from the list. When finished with setting up pump settings, tap Next to continue to the Configure Heaters screen.

IntelliFlo VF Settings: Tap Settings: Pump Type (select a different type of pump), Pump Name (enter a name for the pump), Pump Address: select an address for the pump (1-16). Tap Back twice. Tap Flow Circuits. Tap New Flow Circuits (to change the pump circuit). Flow (GPM): Tap the +/- button to set the flow rate (15-134 GPM). Tap Next twice to add another pump or tap Next twice to configure a heater.

IntelliFlo VS Settings: Tap Settings: Pump Type (select a different type of pump), Pump Name (enter a name for the pump), Pump Address: select an address for the pump (1-16). Tap Back twice. Tap Speed Circuits. Tap New Speed Circuits (to change the pump circuit). Speed (RPM): Tap the +/- button to set the pump speed (450-3450 RPM). Tap Next three times to configure a heater.

IntelliFlo VSF Settings: Tap Settings: Pump Type (select a different type of pump), Pump Name (enter a name for the pump), Pump Address: select an address for the pump (1-16). Tap Back twice. Tap Speed/Flow Circuits. Tap New Speed/Flow Circuits (to change the pump circuit). Type: GPM/RPM): Select either GPM (40-134) or RPM (450-3450). Tap the +/- button to set the speed (RPM) or Flow Rate GPM). Tap Next twice to add another pump or tap Next twice to configure a heater.

Single Speed Pump Settings: Pump Type (select a different type of pump), Pump Name, and Body (pool, spa or pool/spa). Tap Return then Next to continue and add another pump or tap No twice to configure a heater.

Two Speed Pump Settings: Tap Settings: Pump Type (select a different type of pump), Pump Name, Low Speed Circuit and High Speed Circuits. Select a circuit for the low speed and the high speed. You can choose up to (4) four high speed circuits.

HEATERS

Tap Yes then Next to configure a new heater (Tap No then Next to continue to Configure Pumps).

Create: Tap Create then Next to select a new heat source type (Gas (MasterTemp, Max-E-Therm and ETi250), Solar, Heat Pump, UltraTemp or Hybrid) and configure the selected heat source settings.
 Heater Name: Enter a name for the heater.
 Affiliated Body: Pool, Spa, or Pool and Spa.

Modify: Tap Modify then Next to display the list of configured heaters. Tap New Pump to add a heat source. From this screen you can add or delete a heat source from the list. When finished with setting up heater source settings, tap Next to continue to the Configure Valves screen.

+ Add Heater: Tap Add Heater to display the available heaters. When finished configuring up the heater settings. Tap Next to continue to the Configure Remotes screen.

Setup Wizard [Advanced System Configuration]

REMOTES

QuickTouch® Remote:

- To setup a QuickTouch remote, select Yes. If there is no QuickTouch remote installed, select No and tap Next to continue.
- Remote Name: You can change the name of the remote and assign the remote's four buttons equipment functions to control.
- Enable Remote ON/OFF): To enable the remote select ON. Tap Next to continue.
- Button Assignments: Tap Configure. Tap Button 1, then tap the AUX circuit button for this circuit. Tap Back and repeat for buttons 2-4. When all buttons have been assigned, tap Return arrow until SpaCommand remote screen is displayed. Tap Next to continue.

iS4 Remote

- To setup a iS4 remote, select Yes. If there is no iS4 remote installed, select No and tap Next to continue.
- Remote Name: If needed, you can change the name of the remote.
- Enable Remote ON/OFF): To enable the remote select ON. Tap Next to continue.
- Button Assignments: Tap Configure. Tap Button 1, then tap the AUX circuit button for this circuit. Tap Back and repeat for buttons 2-4. When all buttons have been assigned, tap Return arrow until SpaCommand remote screen is displayed. Tap Next to continue.

iS10 Remote: To setup a iS10 remote, select Yes. If there is no iS10 remote installed, select No and tap Next to continue.

- Remote Name: If needed, you can change the name of the remote.
- Enable Remote (ON/OFF): To enable the remote select ON. Tap Next to continue.
- Remote Channel: Assign a channel from 1-4. Tap Return.
- Affected Pump: Select pump assigned to this remote.
- Button Assignments: Tap Configure. Tap Button 1, then tap the AUX circuit button for this circuit. Tap Back and repeat for buttons 2-9. When all buttons have been assigned, tap Return arrow until SpaCommand remote screen is displayed. Tap Next to continue.

SpaCommand® Remote: To setup a SpaCommand remote, select Yes. If there is no SpaCommand remote installed, select No and tap Next to continue.

- Remote Name: If needed, you can change the name of the remote.
- Enable Remote (ON/OFF): To enable the remote select ON. Tap Next to continue.
- Remote Channel: Assign a channel from 1-4. Tap Return.
- Affected Pump: Select pump for this remote.
- Button Assignments: Tap Configure. Tap Button 1, then tap the AUX circuit button for this circuit. Tap Back and repeat for buttons 2-9. When all buttons have been assigned, tap Return arrow until SpaCommand remote screen is displayed. Tap Next to continue.

Chemical Controllers: IntelliChem® Controller and IntelliChlor® SCG

Note: One IntelliChem Controller and one IntelliChlor® SCG can be installed one IntelliCenter Control System.

IntelliChem Controller: Tap Yes then Next to configure one IntelliChem. Tap No for no IntelliChem Controller installed. IntelliChem Settings: Select the Channel (1-16) for the device.

Body 1 is assigned Pool/Spa for shared equipment or choose pool or spa for single body systems, Body 2 is assigned to Spa for shared equipment systems. This screen displays the body of water assigned to the device.

IntelliChlor SCG: Tap Yes then Next to configure one IntelliChlor SCG. Tap No for no IntelliChlor SCG installed.

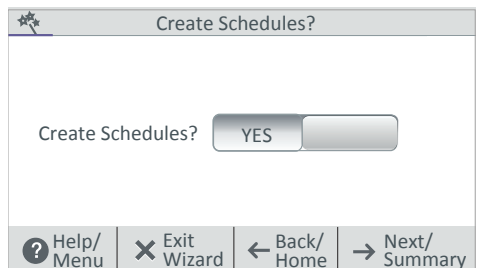
Body 1 is assigned Pool/Spa for shared equipment or choose pool or spa for single body systems, Body 2 is assigned to Spa for shared equipment systems. This screen displays the body of water assigned to the device.

Chlorination Output Levels: Pool /Spa Output Levels: Set the Pool and Spa chlorine output levels.

The system can only generate chlorine while the filter pump is operating. Set the run time percentage to produce chlorine. The higher the percentage the more chlorine is produced. Lower the percentage for less chlorine production.

Setup Wizard [Advanced System Configuration]

SCHEDULES



If Yes then Next to configure system schedules.

If no schedules are required at this time, tap No then Next to continue to the Setup Wizard Summary screen.

Create / Modify: Tap Create then Next and choose a circuit to schedule. Tap Modify to change an existing schedule.

Create a Schedule: Tap Create then Next. From the Schedules screen, tap Add Schedule and choose the circuit. Tap Next. From the Schedule Settings screen, tap the Schedule name button (Weekly or One Time) and select the days to run the schedule. Tap Check when finished to save the schedule.

Start Time: From the Select Start Time screen, tap the Up/Down arrow button to set the Start time for the schedule. Tap Check to save and return to the previous screen. Tap Next to continue to the Stop Time screen.

Stop Time: From the Select Start Time screen, tap the Up/Down arrow button to set the Start time for the schedule. Tap Check to save and return to the previous screen. Tap Next to continue to the next screen. Tap Yes to add more schedules, if not tap No to continue to the Setup Wizard Summary screen.

SUMMARY

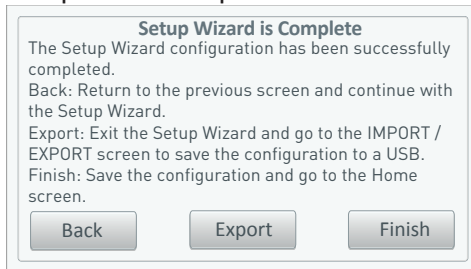
Setup Wizard Summary (Edit Screen)

From the Setup Summary screen you can review the changes you have made to the system. If modifications are necessary, tap the option name and make the changes. If everything appears to be correct, press Next to continue to the Setup Wizard Complete screen.



Setup Wizard [Advanced System Configuration]

Setup Wizard Complete



Back: Return to the previous screen and continue with the Setup Wizard.

Export: Go to the Export System configuration screen. Tap Yes then Next, select a folder location, tap Check to save the export file. Tap OK to return to Wizard Complete screen. Tap No then Next to return to the Wizard Complete screen. Tap No IMPORT / EXPORT screen to save the configuration to a USB.

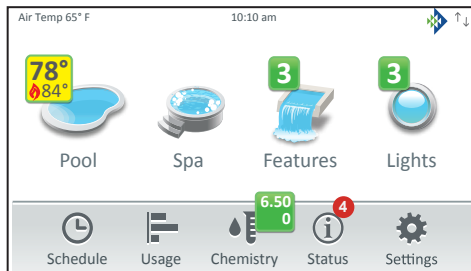


Export System Configuration: Tap Export to USB flash drive to export the current system configuration.

Export to Local: Tap Export to Local to save the current system configuration.

Back: Return to the Create Schedule screen.

Finish: Save the configuration and go to the Home screen. "Applying Settings" is displayed, then the Home screen is displayed. The Setup Wizard has been successfully completed.



Home Screen

Screen Settings

To access the screen settings, from the Home screen, tap Settings > Advanced System Configuration > General > Day/Night Theme,

Back Light: Brightness Level: Adjust the screen brightness level from 33 to 100%.

Dimness Level: Adjust the contrast level from 10 to 100%.

Dim Display (min): While in other screens, sets the time to return to the Home screen (from 0 to 240 minutes (20 hrs).

Turn Off Display (min): Set the time to turn off the screen from 0 to 240 minutes (20 hrs).

Note: The time set to turn off the screen also affects the start time of the Deep Sleep feature (Wireless Remote only), see below for details.

Battery Conservation Mode (Deep Sleep): Tap Deep Sleep Mode to turn on this feature. The default setting is ON. This feature allows you to save the battery life while the wireless remote is in its cradle. Deep Sleep (Hr): Deep Sleep time can be set from 1 to 3 hours (Default 3 hrs.). Select when you want the device to go to sleep to conserve battery life.

IntelliCenter® Control System Menu

Home Screen

- Pool Screen
- Spa Screen
- Features (Individual/Groups)
- Lights (Individual/Groups)
- Schedule (Weekly, One Time Only Schedule)
- Usage
- Chemistry (IntelliChem® Controller/IntelliChlor® SCG)
- Status

Settings

- Service Mode
- Vacation Mode
- Support
- General:** Location, Date & Time, Units (Fahrenheit/Celsius), Features and Lights List Order, General List Order, Backlight (Deep Sleep): Wireless Control Panel only, Temperature Sensor Calibration, Day / Night Themes, Manual Operation Priority, Manual Heat, Chemistry Readings Badge, Badge Colors.
- Alerts and Notifications:** Choose which system status, alerts and warnings badges to display on the Home screen Status icon.
- Security (Passcode Protect)
- Pentair User Portal (intelllicenter.com)
- Groups:** Configure groups of AUX circuits, Light circuits and Feature circuits.
- System Reboot:** Reboot the panel
- Advanced System Configuration

Installation Setup:

Body Configuration, Circuits, Pumps, Heaters, Valves, Chemistry, Pool/Spa Cover.

Remotes Setup: iS4, QuickTouch II, iS10, SpaCommand remotes

Network and WiFi Setup: (Not required for Wireless 900MHz High Power Wireless Link Kit (P/N 523434). Please refer to the provided installation instructions (P/N 523445) when installing the 900 MHz Wireless antenna. Configure Ethernet, Connect to a Wireless Network, Adjust Wireless Transmit Power, Internet Connection Test, Reboot Wireless Device.

IntelliCenter Wireless Remote Setup: Configure the Address and Panel # for wireless remote.

Delays: Valve Delay, Heater Cool Down, Freeze Cycle Time (min), Spa Freeze Override (min), Override Delays.

System: System Information, Detected Hardware, System Diagnostic Information, Firmware Update (Update from Panel, Update from USB, Update from Ethernet), Factory Diagnostics.

Import/Export: Import System Configuration, Export System Configuration.

Restore Factory Defaults: Restore system to factory configuration.

Setup Wizard: Step-by-step system configuration.

IntelliCenter® Control System Test

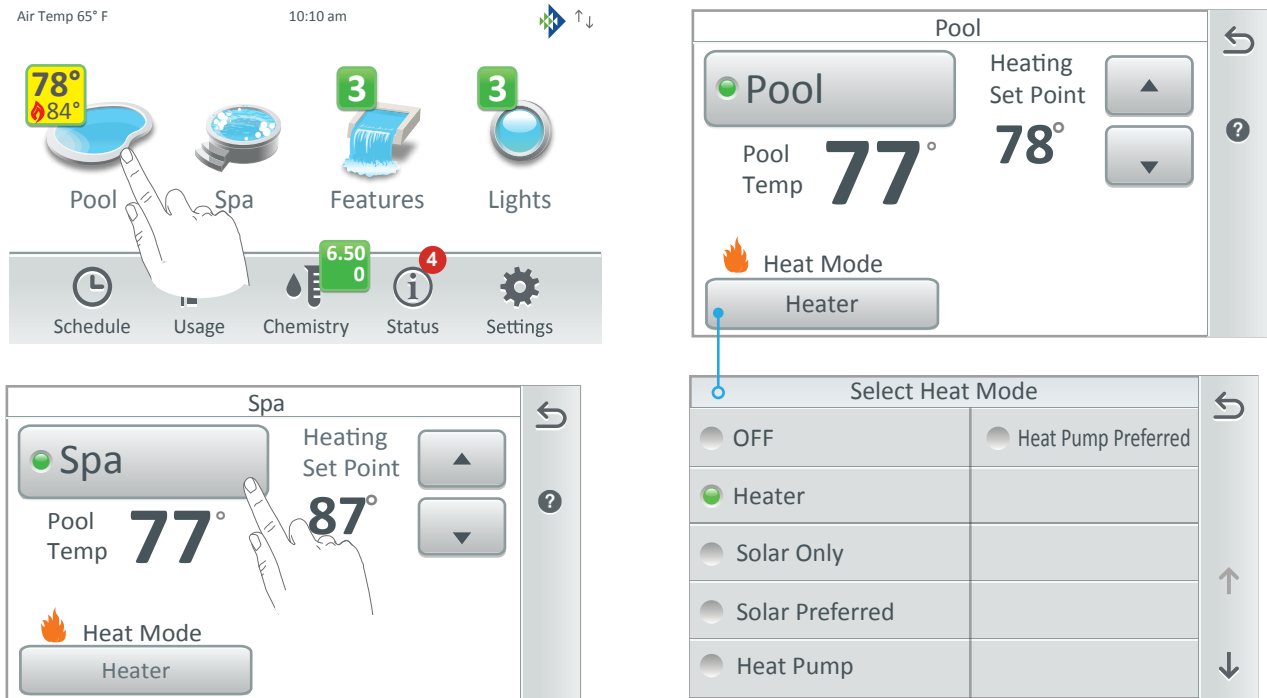
The following describes how to test the IntelliCenter Control System Outdoor Control Panel to activate the heater, valves and pumps. This test assumes that all system equipment has been properly installed and connected to the IntelliCenter Control System Load Center.

Testing Valve Actuators and Pumps

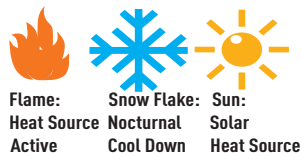
Use the following steps to test the valve actuators (CVA24T) for proper rotation for i5PS IntelliCenter Control System (shared equipment).

To test the valve actuators and pump:

1. Switch on the main circuit breakers to apply power to the IntelliCenter Control System Load Center.
2. **Pool and Spa Pump and Heater Test:** From the Home screen, **tap Pool > Pool (or tap Spa > Spa)** to activate the pool pump (or Spa pump) and heater. **Tap the Heat Mode** button and select a different heat source. The Heat Mode button indicator is Red to indicate the heater is on, Blue is heater cool down mode. When the heater is on a flame indicator is shown on the Home screen pool Green badge. **Tap Return** to return the Home screen.



Heat Mode button indicator:

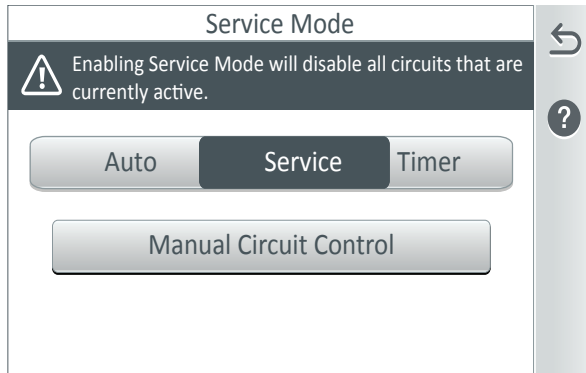


Pool Badge Icons: A Flame icon is displayed with the current heat set point temperature. The **Spa badge icon** indicates that the heat source has been called for. A Snow Flake icon indicates the UltraTemp Heat Pump, Hybrid Heater or Solar Heat (if enabled) is in cooling mode. A Sun icon indicates solar heat is active. Select the heat source from the Select Heat Source screen.

Spa Manual Heat ON/OFF Feature: Spa Manual Heat ON/OFF Feature: If the Heat Enabled (Default ON) feature is selected (see Spa Body Configuration > Spa Settings) when the Spa pump button (or from the Spa-Side remote, or Wireless Controller) is manually turned on, the pump will turn on and the heater will begin to heat the spa (even if the heater is set to OFF). This feature allows you to program the pool pump to filter daily with the heater set to off, and then be ready to heat whenever the Spa button is pressed.

Testing Valve Actuators and Pumps (Continued)

3. **Testing equipment auxiliary circuits:** From the Home screen, tap **Settings > Service Mode > Service**. Note: Service Mode is displayed on the Home screen.
4. Tap **Manual Circuit Control**. To test the equipment, tap the displayed circuits (pump, aux, solar, heater) to confirm proper operation. When the pool circulation pump is on water will flow from the pool and returned into the pool. The Green radio button is lit when equipment is manually switched on. Grey indicates the circuit is off.
5. After testing the auxiliary circuits, tap the **Return arrow** to return to the Service Mode screen. Tap **Auto** to return the system to operating mode. Tap and hold the **Return arrow** to return to the Home screen.



6. **Manual Test Valve Actuators:** Set both valve actuators (CVA-24T) for suction and return. Use the toggle switch on the rear of the CVA-24 to withdraw and return water from the pool.

Note: With the circulation pump operating, if the water is not being removed and returned to the pool, it may be necessary to toggle the valve ON1 and ON2 switch (or vice versa).

Solar Valve Test

1. Switch on the main circuit breakers to apply power to the IntelliCenter® Control System load center.
2. Check that Solar Valve is in *solar bypass* position, diverting water away from solar panels. If Solar Valve is staged incorrectly (diverting water to the solar panels), reverse switch on back of Valve Actuator (change from ON1 to ON2, or vice-versa). The Valve Actuator will automatically rotate to the correct position.
3. Check that Solar Valve has rotated from the “solar bypass” position to the “solar” position, diverting water through the solar panels.
4. The system is now ready to be operated as desired.

HEATER CONNECTIONS: Note: i5PS/i10D: Pool/Spa Heater Connections - It does not matter which body of water is connected to each heater connector. The heater on the main i5P board is for body 1 (pool or spa), and the heater on the i10D board is for body 2 (pool or spa).

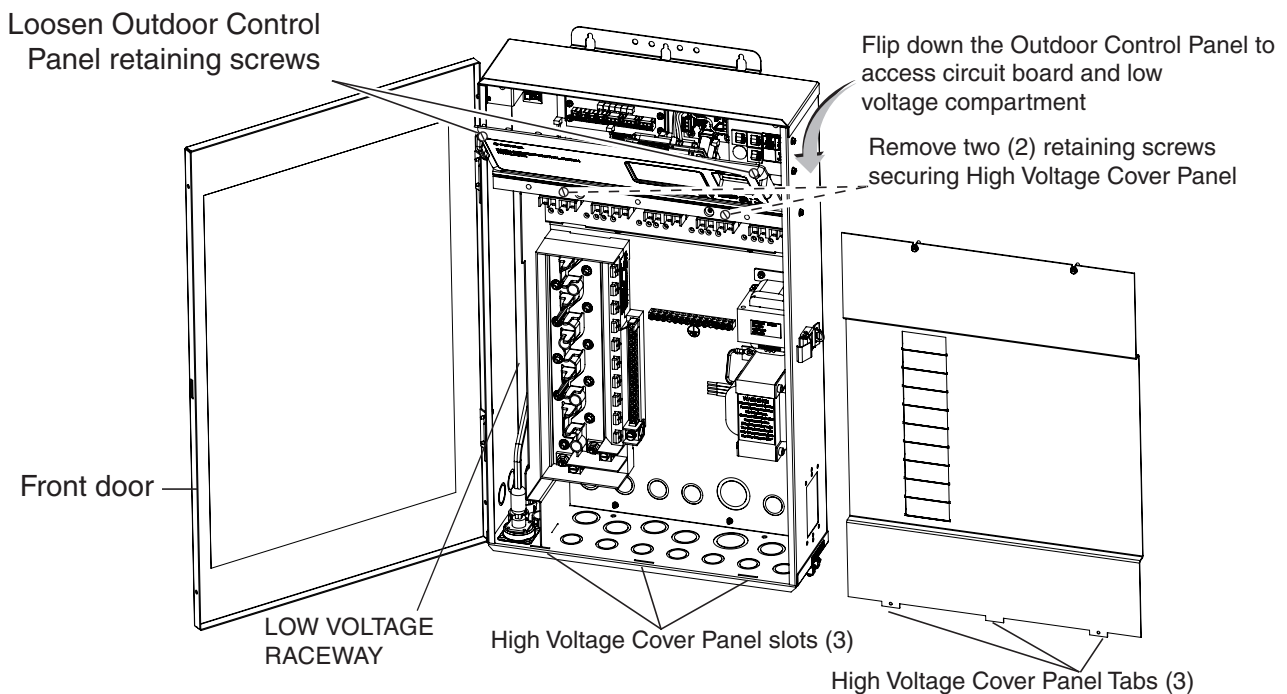
Installing the Outdoor Control Panel in the Load Center or Power Center

WARNING BEFORE INSTALLING THE OUTDOOR CONTROL PANEL IN THE LOAD CENTER, ALWAYS SWITCH OFF AC POWER AT THE MAIN HOUSE CIRCUIT BREAKERS.

The IntelliCenter® Control System Outdoor Control Panel installs in the top part of the Load Center enclosure. The control panel controls and distributes high voltage power to the valve actuators, control pumps, lights, and heater operations. The optional IntelliCenter Control System Indoor Control Panel, Wireless Controller, SpaCommand®, iS10, iS4 and QuickTouch® Remote Controllers also controls these and other functions, such as pool and spa lights.

To install the Outdoor Control Panel:

1. Unlatch the front door spring latch and open the front door of the Load Center enclosure.
2. Loosen the two (2) retaining screws securing the high voltage cover-panel. Remove the HIGH VOLTAGE COVER PANEL from the enclosure (as shown on below).
3. Remove the Outdoor Control Panel from its packaging.
4. Mount the Outdoor Control Panel in the top part of the Load Center. Secure the lower edge of the control panel with the two retaining screws. Once secured, the Control Panel can hinge out and down to access the circuit board and the low voltage connections.
5. When finished connecting the low voltage connections on the circuit board, close the hinged control panel and secure it with the two retaining screws. Reinstall the High Voltage Panel: Insert the panel's three tabs into the lower slots on the enclosure. Secure the panel with the two (2) retaining screws. Close the front door and secure with the latch.



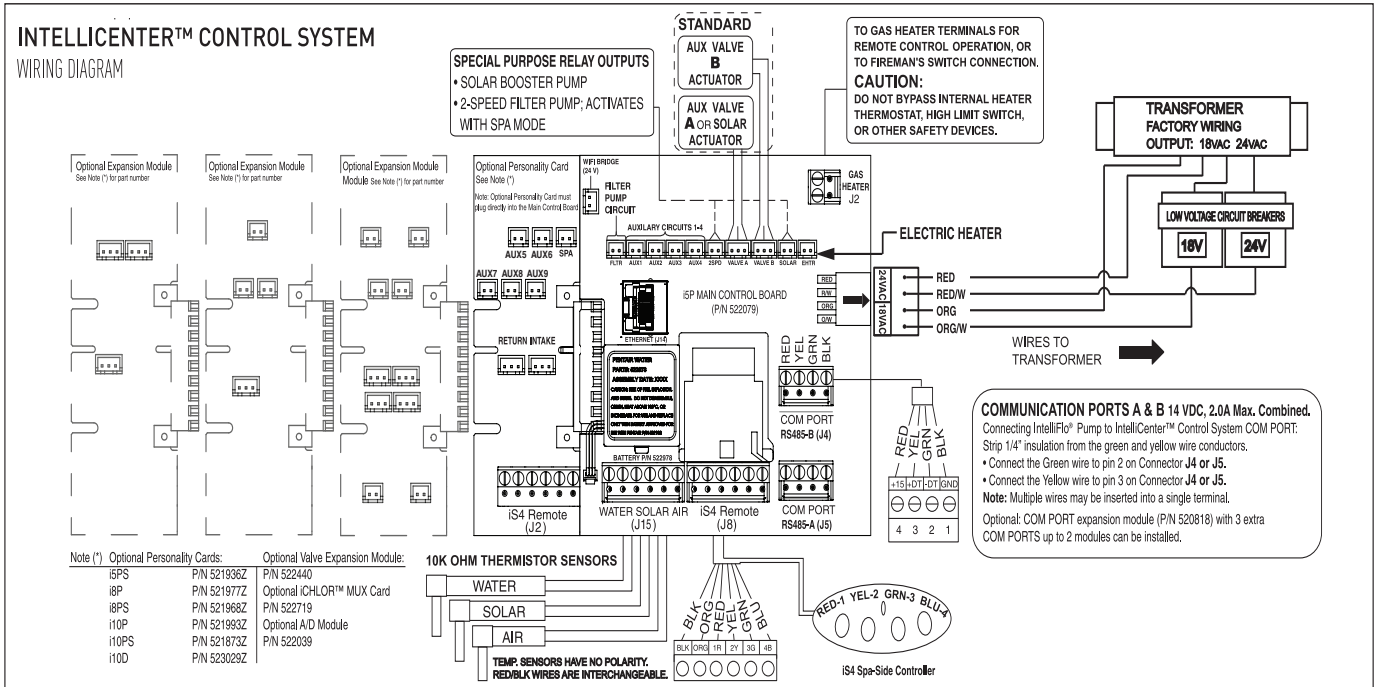
IntelliCenter® Load Center Control System Load Center (front view)
(High Voltage Cover Panel removed)

IntelliCenter® Control System Personality Boards

For IntelliCenter Control System can be configured for single body or dual body (shared equipment). The base configuration is the i5P (five auxiliary pool circuits plus a filter pump circuit for a single body of water). By adding a Personality circuit board the system can be expanded to support pool and spa (i5PS - shared equipment, dual body of water) or dual equipment.

The following are IntelliCenter Control System Personality Models:

- P/N 521909 IntelliCenter Control System i5P, Single Body
- P/N 521910 IntelliCenter Control System i8P, Single Body
- P/N 521911 IntelliCenter Control System i10P, Single Body
- P/N 521912 IntelliCenter Control System i5PS, Shared Equipment
- P/N 521913 IntelliCenter Control System i8PS, Shared Equipment
- P/N 521914 IntelliCenter Control System i10PS, Shared Equipment
- P/N 521915 IntelliCenter Control System i10D, Dual Equipment
- P/N 522033 IntelliCenter Control System i5X Expansion
- P/N 522034 IntelliCenter Control System i10X Expansion

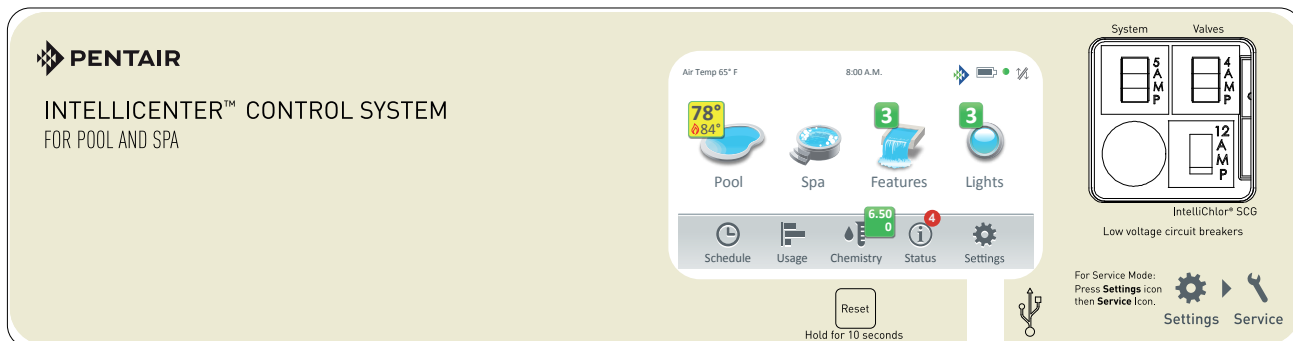


IntelliCenter Control System Circuit Board
 (with optional Expansion Boards shown)

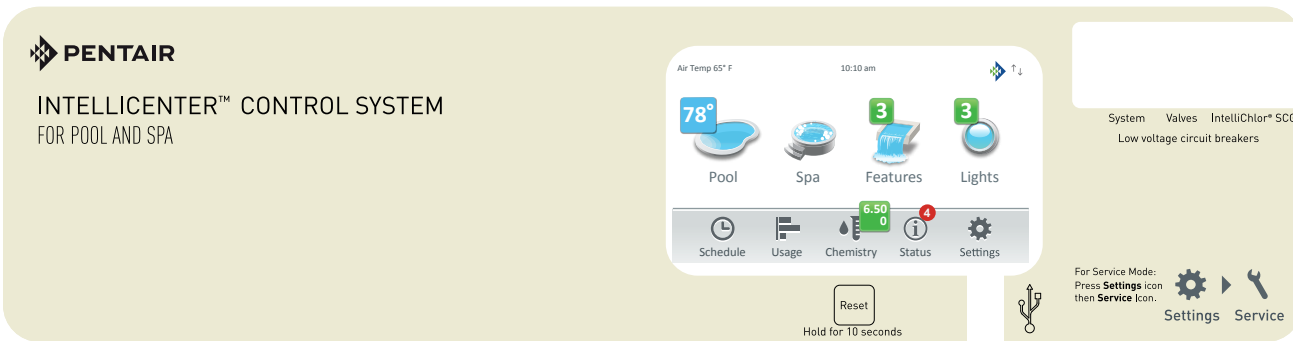
Note: i5PS/i10D: Pool/Spa Heater Connections - It does not matter which body of water is connected to each heater connector. The heater on the main i5P board is for body 1 (pool or spa), and the heater on the i10D board is for body 2 (pool or spa).

IntelliCenter® Control System Outdoor Control Panels

For IntelliCenter Control System Outdoor Control Panel Wiring Diagrams, see pages 58-59.



IntelliCenter Control System Outdoor Control Panel (see page 63 for part numbers)



IntelliCenter Control System Outdoor Control Panel (Retrofit for EasyTouch® or IntelliTouch® Control System Load Center)



IntelliCenter Control System
Wireless Controller
P/N 522036 (Optional)



IntelliCenter Control System
Indoor Control Panel
P/N 522035 (Optional - Maximum of two per system))

IntelliCenter® Control System Load Center Wiring Diagram

WARNING
AVERTISSEMENT

PREVENT ELECTROCUTION
ÉVITER TOUT RISQUE D'ÉLECTROCUTION

INSTALL AT LEAST 5 FEET (1.5 m) FROM INSIDE WALL OF POOL OR SPA.
INSTALLER AU MOINS 1.5 MÈTRES DU MUR INTÉRIEUR DE LA PISCINE OU DU SPA.

DISCONNECT ALL SUPPLY CONNECTIONS BEFORE SERVICING. THIS APPLIANCE MAY HAVE UP TO 11 SUPPLY CONNECTIONS.
DÉBRANCHER TOUTES LES CONNEXIONS AVANT DE TRAVAILLER SUR CETTE UNITÉ. CET APPAREIL PEUT AVOIR JUSQU'À 11 CONNEXIONS DE L'ALIMENTATION.

PENTAIR
INTELLICENTER™ CONTROL SYSTEM
WIRING DIAGRAM

Special Purpose Relay Outputs:
• SOLAR BOOSTER PUMP
• 2-SPEED FILTER PUMP; ACTIVATES WITH SPA MODE

Standard:
AUX VALVE (B) ACTUATOR
AUX VALVE (A) OR SOLAR ACTUATOR

To Gas Heater Terminals for Remote Control, Operation, or to Fireman's Switch Connection, CAUTION:
DO NOT BYPASS INTERNAL HEATER THERMOSTAT, HIGH LIMIT SWITCH, OR OTHER SAFETY DEVICES.

Transformer:
FACTORY WIRING OUTPUT: 190V 200VA
LOW VOLTAGE CIRCUIT BREAKERS: 18V, 24V

Communication Ports A & B: 14 Vdc, 20A Max. Combined
Strip 1/4" insulation from the green and yellow wire conductors.
• Connect the Green wire to pin 2 on Connector J4 or J6.
• Connect the Yellow wire to pin 3 on Connector J4 or J6.
Note: Multiple wires may be inserted into a single terminal.
Optional COM PORT expansion module (PN 52018) with 3 extra COM PORTS up to 2 modules can be installed.

10K OHM THERMISTOR SENSORS: WATER, SOLAR, AIR. **WATER SENSORS HAVE NO POLARITY. POLARITY APPLIES ONLY TO AIR SENSORS.**

Relays: 2-SPEED FILTER PUMP OPTION, 3-SPEED RELAY (AUX), ADDITIONAL POWER RELAYS (AUX 1-8).

APPROVED BREAKER MANUFACTURER	SINGLE (1-POLE)	TWIN (2-POLE)	DUPEX	QUADPLEX	GFCI	FILLER PLATE
SIEMENS	QP	QP	QT	QT	QFP	GF-3
MURRAY	MP-T	MP-T	MH-T	MH-T	MP-GT	ECGF3
PENTAIR	-	-	-	-	PGF*	-
EATON	BR	BR	BRD	BRD	GFCB	BRFP
CUTLER HAMMER	-	-	-	-	-	-
SCHNEIDER SQUARE D	HOM	HOM	HOMT	HOMT	HOM-GFI	FP
GE	THQL	THQL	-	-	THQL-GFI	THFP
Maximum Circuit Breaker Current Rating A.	70A, 80A.	80A.	50A.			

Circuit Breaker Current Rating Not to Exceed:
80A maximum for Single (one) Pole & Twin (two) Pole TYPE breakers.
50A maximum for Duplex & Quadplex TYPE breakers (2 circuits per space).
Maximum continuous load not to exceed 80% of the Ampere rating of any over current device installed.
*Recommended for use with Pentair IntelliCenter™ pumps.

WIRE INSTALLED IN CONNECTOR	TORQUE LB. IN.
20 - 3 AWG	50 LB IN.
4 AWG	45 LB IN.
6 AWG	35 LB IN.
8 AWG	25 LB IN.
14 - 10 AWG	20 LB IN.

RELAY CONTACT OUTPUT	General: 25A, 277VAC
PUMP	LIGHT
1.5 HP 120 VAC	1.5 KW 120 VAC TUNGSTEN
3 HP 277 VAC	4.8 KW 240 VAC TUNGSTEN
20 FLA/120 LRA, 120 VAC	20A, 277 VAC BALLAST
17 FLA/102 LRA, 277 VAC	

CAUTION: RISK OF ELECTRIC SHOCK, READ INSTALLATION MANUAL.
AVERTISSEMENT: À RISQUE DE CHOC ÉLECTRIQUE, LIRE LE MANUEL D'INSTRUCTIONS.
IMPORTANT: This Control Panel must be installed in compliance with the National Electrical Code (NFPA 70) including article 650, as well as all local Authority Having Jurisdiction requirements. Mount enclosure with conduit holes down. The Main and Neutral lugs are suitable for 14 AWG to 20 AWG conductors. See Table for lug screw tightening torque values. Install only APPROVED circuit breakers. See Table for suitable Listed Circuit Breakers. See Circuit Breaker Case Marking for wire size and torque requirements. This control is not provided with integral GFCI protection for the lighting circuit. When this control is used to power or switch an underwater luminaire, suitable GFCI protection shall be provided in the field. Follow manufacturers' instructions for installing and testing of Ground Fault Circuit Breakers (GFCB) and Interrupters (GFCI); (Canada Class A GFCI). An APPROVED GFCI duplex receptacle may be installed in the rectangular knockout provided on the right side of the enclosure. If the panel is installed outdoors, an APPROVED TYPE 3R (RAINPROOF) Cover MUST be installed over the wiring device in the rectangular opening. Make sure connections inside the low voltage compartment are well insulated, connectors properly seated and wiring lugs tightened. After wiring is completed, install front panel over wiring compartment opening and close off any unused breaker openings with filler plates.
TYPE 3R "Rainproof" (IPX3). Enclosure suitable for INDOOR or OUTDOOR USE.
Control Panel suitable for SWIMMING POOL/SPA applications.
Electrical Rating: 120/240VAC 150 AMP Single Phase (3 Wires).
The input line to this control panel should be protected by a 240 VAC circuit breaker rated at NO MORE than 150 Amperes maximum.
Control Transformer Input: 120VAC, 2A; 240VAC, 1A, 50/60Hz.
SCG Transformer Input (if equipped): 120VAC, 2.5A; 240VAC, 1.3A, 50/60 Hz.
Short Circuit Current Rating: 5000 RMS SYMMETRICAL AMPERES.
Use COPPER CONDUCTORS ONLY. Use 14 AWG to 2/0 AWG, 60/75°C Copper conductors for all field wiring.
SEUL CONDUCTEURS DE CUivre DOIVENT ÊTRE UTILISÉS.

PREVENT WATER DAMAGE. KEEP DOOR CLOSED. PRÉVENIR LES DÉGÂTS D'EAU. GARDEZ LA PORTE FERMÉE.

INTELLICHLOR® SALT CHLORINE GENERATOR OPTION
TRANSFORMER INPUT:
120VAC @ 2.5A, 50/60 Hz
240VAC @ 1.3A, 50/60 Hz
WIRING CONFIGURATION FACTORY SET FOR 240V.
WARNING: DISCONNECT LOAD CENTER POWER BEFORE SERVICING SCG TRANSFORMER
Connect the Salt Chlorinator transformer to the FILTER PUMP RELAY ONLY. The chlorinator should only be powered when the Filter Pump is ON.

SCG TRANSFORMER WIRING
[240V Line Voltage] Transformer Leads
120V: YELLOW, VIOLET/BLUE, BLACK, WHITE
120V: YELLOW, BLACK, WHITE
NEUTRAL: VIOLET/BLUE, WHITE

CONTROL TRANSFORMER WIRING
120V NEUTRAL, 120V LINE VOLTAGE, 240V LINE VOLTAGE

FROM MAIN PANEL 240 VAC 150 AMP MAX.

IntelliCenter Control System Load Center Wiring Diagram

IntelliCenter Control System Installation Guide

IntelliCenter® Control System Power Center Wiring Diagram

WARNING PREVENT ELECTROCUTION
INSTALL AT LEAST 5 FEET (1.5m) FROM INSIDE WALL OF POOL OR SPA.

AVERTISSEMENT ÉVITER TOUT RISQUE D'ÉLECTROCUTION
INSTALLER AU MOINS 1.5 MÈTRES DU MUR INTÉRIEUR DE LA PISCINE OU DU SPA.

DISCONNECT ALL SUPPLY CONNECTIONS BEFORE SERVICING. THIS APPLIANCE MAY HAVE UP TO 11 SUPPLY CONNECTIONS.

DÉBRANCHER TOUTES LES CONNEXIONS AVANT DE TRAVAILLER SUR CETTE UNITÉ. CET APPAREIL PEUT AVOIR JUSQU'À 11 CONNEXIONS DE L'ALIMENTATION.

INTELLICENTER™ CONTROL SYSTEM WIRING DIAGRAM

Special Purpose Relay Outputs:
 • SOLAR BOOSTER PUMP
 • 2-SPEED FILTER PUMP: ACTIVATES WITH SPA MODE

Standard Actuators:
 • AUX VALVE B ACTUATOR
 • AUX VALVE A OR SOLAR ACTUATOR

TO GAS HEATER TERMINALS FOR REMOTE CONTROL OPERATION, OR TO FIREMAN'S SWITCH CONNECTION. CAUTION: DO NOT BYPASS INTERNAL HEATER THERMOSTAT, HIGH LIMIT SWITCH OR OTHER SAFETY DEVICES.

ELECTRIC HEATER

TRANSFORMER FACTORY WIRING OUTPUT: 18V/24VAC

LOW VOLTAGE CIRCUIT BREAKERS

WIRES TO TRANSFORMER
 RED
 RED/W
 ORG
 ORG/W

COMMUNICATION PORTS A & B 14 VDC, 2.0A Max. Combined.
 Connecting IntelliFik® Pump to IntelliCenter™ Control System COM PORT.
 Strip 1/4" insulation from the green and yellow wire conductors.
 • Connect the Green wire to pin 2 on Connector J4 or J5.
 • Connect the Yellow wire to pin 3 on Connector J4 or J5.
 Note: Multiple wires may be inserted into a single terminal.
 Optional COM PORT expansion module (PIN 522818) with 3 extra COM PORTS up to 2 modules can be installed.

10K OHM THERMISTOR SENSORS
 WATER
 SOLAR
 AIR

TEMP. SENSORS HAVE NO POLARITY. REDUCED WIRE SIZE INTERCHANGEABLE.

IS4 SpaSide Controller

POWER RELAYS

2-SPEED FILTER PUMP OPTION

PREVENT WATER DAMAGE. KEEP DOOR CLOSED.

PRÉVENIR LES DÉGÂTS D'EAU. GARDEZ LA PORTE FERMÉE.

CAUTION RISK OF ELECTRIC SHOCK. READ INSTALLATION MANUAL.
IMPORTANT: This Control Panel must be installed in compliance with the National Electrical Code (NFPA 70) including article 680, as well as all local Authority Having Jurisdiction requirements. Mount enclosure with conduit holes down. This control is not provided with integral GFCI protection for the lighting circuit. When this control is used to power or switch an underwater luminaire, suitable GFCI protection shall be provided in the field. Follow manufacturers' instructions for installing and testing of Ground Fault Circuit Breakers (GFCB) and Interrupters (GFCI); (Canada Class A GFCI). An APPROVED GFCI duplex receptacle may be installed in the rectangular knockout provided on the right side of the enclosure. If the panel is installed outdoors, an APPROVED TYPE 3R (RAINPROOF) Cover MUST be installed over the wiring device in the rectangular opening. Make sure connections inside the low voltage compartment are well insulated, connectors properly seated and wiring lugs tightened. After wiring is completed, install front panel over wiring compartment opening.

WARNING
 DO NOT USE THE INTELLICENTER CONTROL SYSTEM TO CONTROL AN AUTOMATIC POOL COVER. SWIMMERS CAN BECOME ENTRAPPED UNDER THE COVER, WHICH COULD RESULT IN INJURY AND/OR DEATH.

TYPE 3R "Rainproof" (IPX3), Enclosure suitable for INDOOR or OUTDOOR USE.
 Control Panel suitable for SWIMMING POOL/SPA applications.
 Electrical Rating: 120/240VAC 150 AMP Single Phase (3 Wire).
 The input line to this control panel should be protected by a 240VAC circuit breaker rated at NO MORE than 150 Amperes maximum.
 Control Transformer Input: 120VAC, 2A; 240VAC, 1A, 50/60Hz.
 SCG Transformer Input (if equipped): 120VAC, 2.5A; 240 VAC, 1.3A, 50/60 Hz.
 Short Circuit Current Rating: 5000 RMS SYMMETRICAL AMPERES.
 Use COPPER CONDUCTORS ONLY.
 Use 14 AWG to 6 AWG, 60/75°C Copper conductors for all field wiring.

Enclosure suitable for INDOOR or OUTDOOR USE.
Pour une utilisation en intérieure comme en extérieure.

AVERTISSEMENT
 DON PAS UTILISER L'EASY TOUCH OU INTELLI TOUCH SYSTÈME POUR CONTRÔLER UNE COUVERTURE DE PISCINE AUTOMATIQUE. NAGEURS CA ÊTRE COUVRÉ SOUS LE COUVERTURE, QUI POURRAIT RÉSULTER EN BLESSURES ET OU LA MORT.

CONTROL TRANSFORMER WIRING

INTELLICHLOR® SALT CHLORINE GENERATOR OPTION

TRANSFORMER INPUT:
 120VAC @ 2.5A, 50/60 Hz • 240VAC @ 1.3A, 50/60 Hz
WARNING! DISCONNECT LOAD CENTER BEFORE SERVICING SCG TRANSFORMER.
 Connect this chlorinator transformer to the FILTER PUMP RELAY ONLY. The chlorinator should only be powered when the Filter Pump is ON.

SCG TRANSFORMER WIRING

240V Line Voltage Transformer Leads
 120V — YELLOW
 — VIOLET/BLUE
 — BLACK

120V Line Voltage Transformer Leads
 120V — YELLOW
 — BLACK
 — WHITE
 NEUTRAL — VIOLET/BLUE
 — WHITE

A disconnecting means must be located within sight from the equipment and at least 5 feet (1.5m) from the inside walls of the pool, spa or hot tub.

UL LISTED POOL/SPA CONTROLLER 5K42

RELAY CONTACT OUTPUT

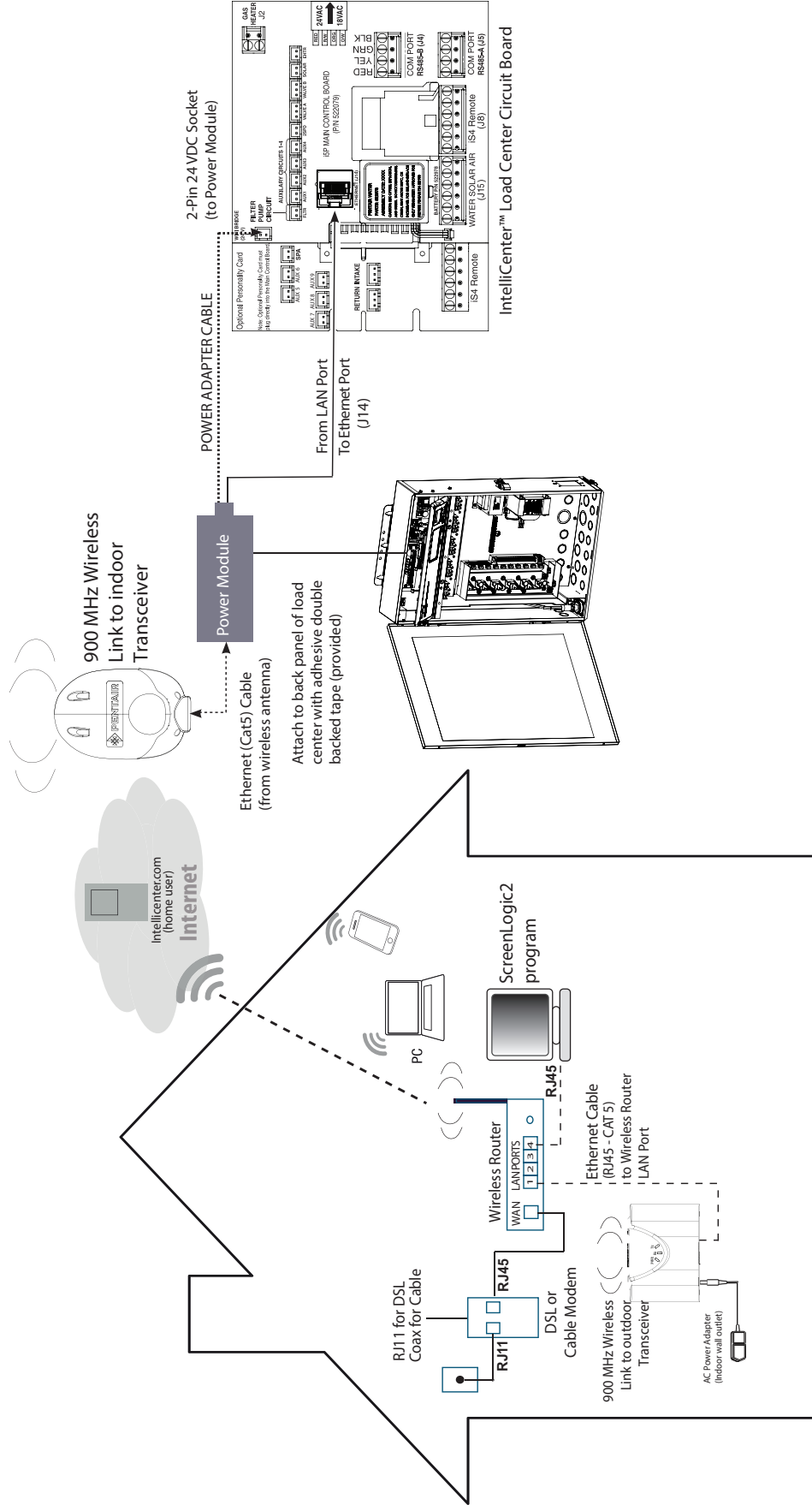
General: 25A, 277VAC	
PUMP	LIGHT
1.5 HP 120 VAC	1.5 KW 120 VAC TUNGSTEN
3 HP 277 VAC	4.8 KW 240 VAC TUNGSTEN
20 FLA/102 LRA, 120 VAC	20A, 277 VAC BALLAST
17 FLA/102 LRA, 277 VAC	

Sanford NC • Moorpark CA

Customer Service 800-831-7133

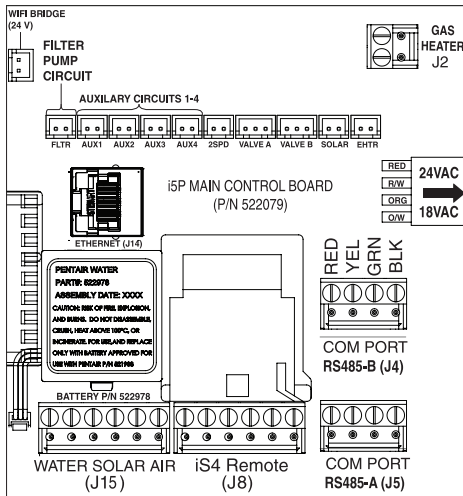
IntelliCenter Control System Power Center Wiring Diagram

IntelliCenter Control System Installation Guide

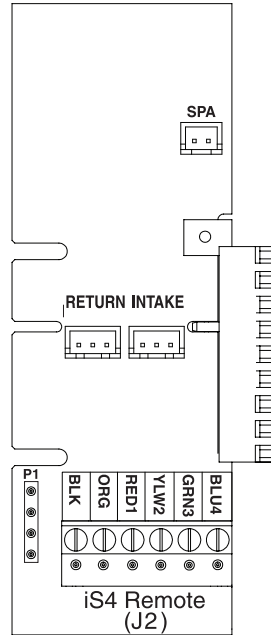


IntelliCenter® Control System Wireless Connections

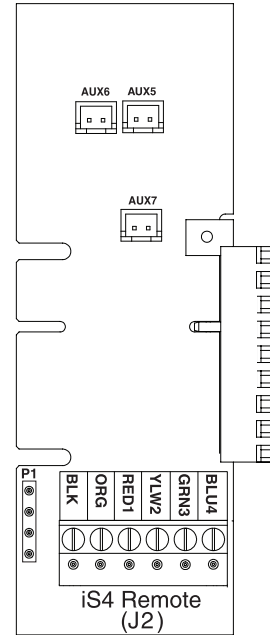
IntelliCenter® Control System Optional Personality Cards



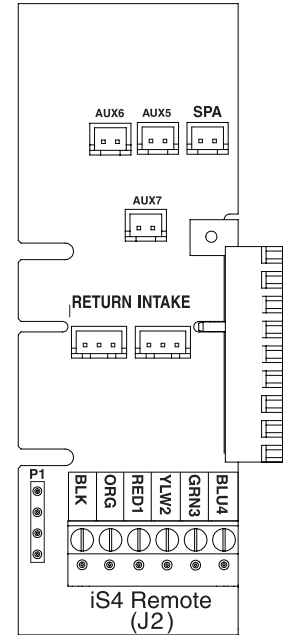
i5P, Single Body (P/N 521909)



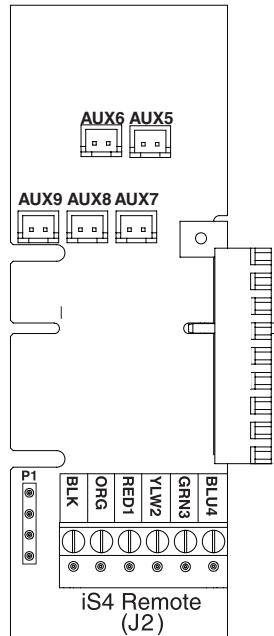
i5PS, Shared Equipment (P/N 521912)



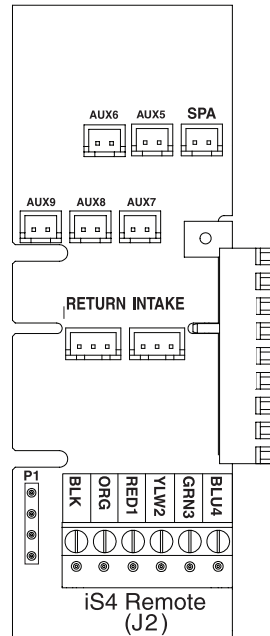
i8P, Single Body (P/N 521910)



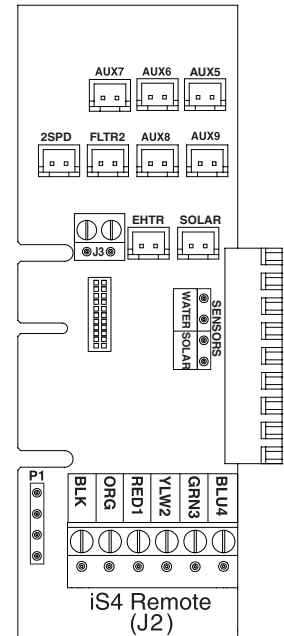
i8PS, Shared Equipment (P/N 521913)



i10P, Single Body (P/N 521911)



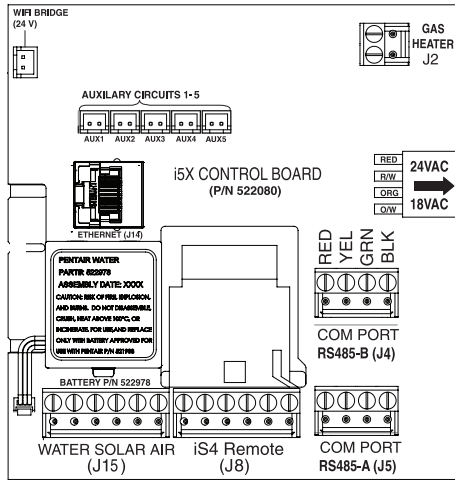
i10PS, Shared Equip. (P/N 521914)



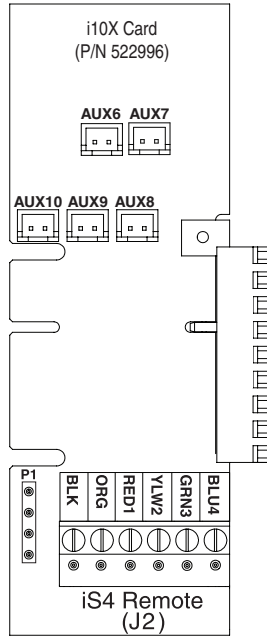
i10D, Dual Equip. (P/N 521915)

Note: i5PS/i10D: Pool/Spa Heater Connections - It does not matter which body of water is connected to each heater connector. The heater on the main i5P board is for body 1 (pool or spa), and the heater on the i10D board is for body 2 (pool or spa).

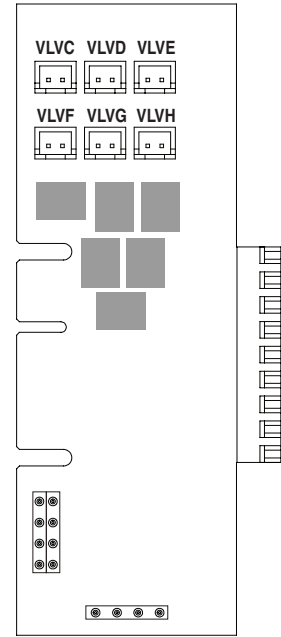
IntelliCenter® Control System Optional Personality Cards



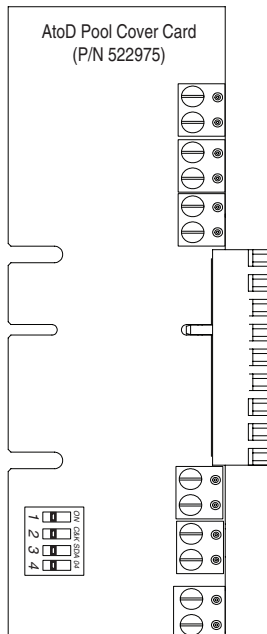
i5X Expansion
(P/N 522080)



i10X Expansion
(P/N 522996)
(Requires i5X)



Valve Expansion Module
(P/N 522038Z)



Analog to Digital Pool Cover Card
(P/N 522039Z)

IntelliCenter Control System Kits

521903	IntelliCenter Kit i8PS, Load Center IntelliChlor IC40 -- Model Code: 8PSIC40
521904	IntelliCenter Kit i8PS, Load Center -- Model Code: 8PS
521905	IntelliCenter Kit i5P, Load Center, IntelliChlor IC40 -- Model Code: 5PIC40
523623	IntelliCenter Kit i5P, Power Center -- Model Code: 5PSPC
523624	IntelliCenter Kit i5P, Power Center, 2 Standard Valves -- Model Code: 5PSPCV
521906	IntelliCenter Kit i5PS, Load Center, IntelliChlor IC40 -- Model Code: 5PSIC40
521907	IntelliCenter Kit i5PS, Load Center -- Model Code: 5PS
523625	IntelliCenter Kit i5PS, Power Center, 2 IntelliValves -- Model Code: 5PSPCIV
521908	IntelliCenter Kit i10PS, Load Center, IntelliChlor IC40 -- Model Code: 10PSIC40

Personality Kits

521909	IntelliCenter i5P, Single Body
521910	IntelliCenter i8P, Single Body
521911	IntelliCenter i10P, Single Body
521912	IntelliCenter i5PS, Shared Equipment
521913	IntelliCenter i8PS, Shared Equipment
521914	IntelliCenter i10PS, Shared Equipment
521915	IntelliCenter i10D, Dual Equipment
522080	IntelliCenter i5X Expansion Panel
522996	IntelliCenter i10X Expansion Card (requires i5X)

Load Center & Power Center with Personality Kits

522041	Load Center, with IntelliChlor Transformer.
522042	Power Center, with IntelliChlor Transformer.
522043	Load Center, without IntelliChlor Transformer.
522044	Power Center, without IntelliChlor Transformer.

Upgrade Kits

522045	IntelliTouch/EasyTouch To IntelliCenter Upgrade Kit - i10P, for CLC/CPC
522046	IntelliTouch/EasyTouch To IntelliCenter Upgrade Kit - i10PS, for CLC/CPC
522047	IntelliTouch/EasyTouch To IntelliCenter Upgrade Kit - i10P, for CLC/CPC
522048	IntelliTouch/EasyTouch To IntelliCenter Upgrade Kit - i10PS, for CLC/CPC

Accessories

522035	IntelliCenter Indoor Control Panel Kit (Maximum of two per system)
522036	IntelliCenter Wireless Kit
522038	IntelliCenter Valve Expansion Card (PCBA)
522039	IntelliCenter Pool Cover A/D Card (PCBA)

IntelliCenter® Control System Components

The required components of an IntelliCenter Control System is a Load Center and/or a Power Center, IntelliCenter Control System Personality Kit, and Interface:

Load or Power Center

- **Load Center:** Footprint (26" H x 17" W x 5-1/4" D) Includes built-in sub panel (150 AMPS) capable of holding up to eight 1" breakers. Also includes five 25 AMP three HP relays, 110/240 V transformer with secondary side circuit protection. Multiple knockouts for different sizes of conduit are supplied as well as a GFCI side knockout. The Load Center provides space for all high and low voltage wiring needs.
- **Power Center:** Footprint (20" H x 17" W x 5-1/4" D). The Power Center does not include a circuit breaker base. This enclosure is used with the Load Center.

IntelliCenter Control System Personality Kit Descriptions

The following lists types of IntelliCenter Control Systems available for different pool/spa configurations:

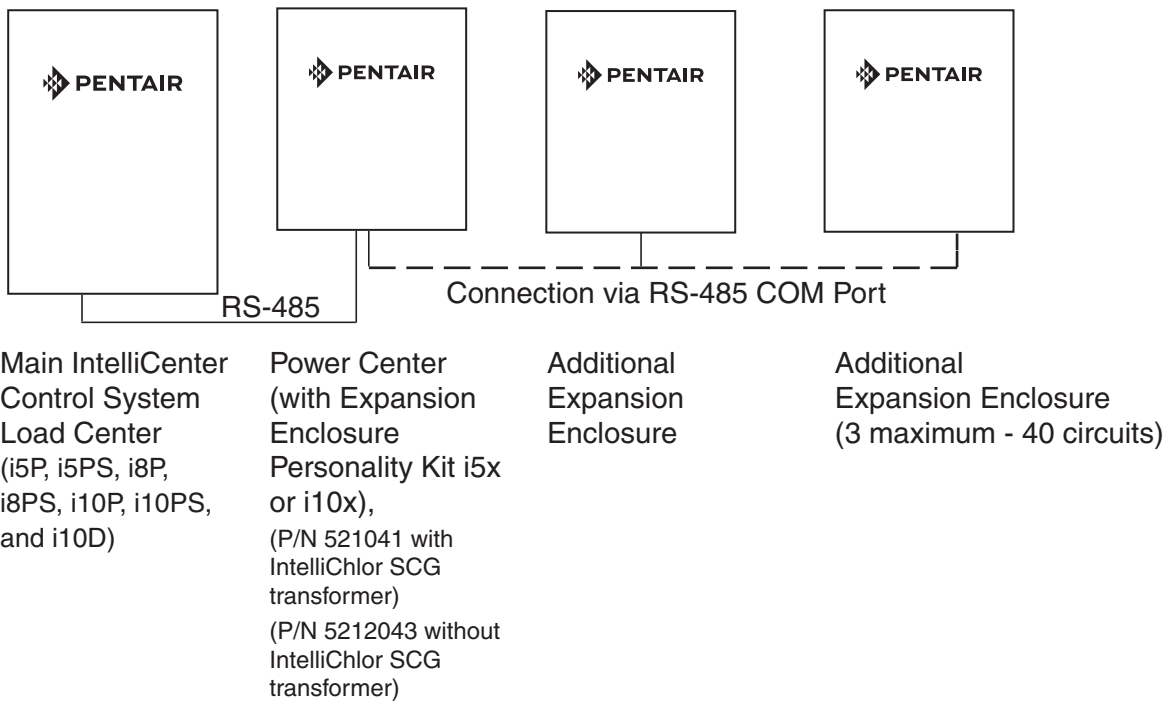
- **Shared Equipment: Pool and spa combinations with shared filtration system** – Pool owners can enjoy the convenience of motorized valves for water flow separation between pool and spa. The Personality Kit models are:
 - i5PS (P/N 521912)** – Four auxiliary circuits plus one dedicated filter pump relay (five relays total). Five relays are included in the Load Center. Create a Feature circuit for valve actuators without using an existing output auxiliary circuit, and special light functions for color lighting.
 - i8PS (P/N 521913)** – Seven auxiliary circuits plus one dedicated filter pump relay (eight relays total). Two relays are included in the Personality kit plus five relays in the Load Center. Create a Feature circuit for valve actuators without using an existing output auxiliary circuit, and special light functions for color lighting).
 - i10PS (P/N 521914)** – Nine auxiliary circuits plus one dedicated filter pump relay (10 relays total). Three relays are included in the Personality kit plus five relays in the Load Center. Create a Feature circuit for valve actuators without using an existing output auxiliary circuit, and special light functions for color lighting).
- **Dual Equipment: Pool and Spa with Dual Sets of Equipment (i10D P/N 521915)** – This system is designed to operate two sets of pool equipment. Each set of a equipment (Pool or Spa) can control one temperature setting.
 - i10D (P/N 521915)** – Eight auxiliary circuits plus two dedicated filter pump relays (10 relays total). Five relays are included in the personality kit and five in the Load Center.
- **Single Equipment: Pool Only or Spa Only** – This system is designed to operate a single body of water (LO-TEMP and HI-TEMP). The Personality Kit models are:
 - i5P (P/N 521909)** – Four auxiliary circuits plus one dedicated filter pump relay (five relays total). Five relays are included in the Load Center.
 - i8P (P/N 521910)** – Seven auxiliary circuits plus one dedicated filter pump relay (eight relays total). Two relays are included in the Personality kit plus five relays in the Load Center.
 - i10P (P/N 521911)** – Nine auxiliary circuits plus one dedicated filter pump relay (10 relays total). Four relays are included in the Personality kit plus five relays in the Load Center.

IntelliCenter® Control System Expansion Kits

- **Expansion Kits:** Models i5X (P/N 521033) and i10X (P/N 521034), offer five or ten additional Auxiliary Circuits. Each IntelliCenter Control System Expansion Kit requires a Load Center (P/N 521213) or Power Center (P/N 521214). Up to three Expansion Kits and Load or Power Centers may be added to a system, for control of up to 38 Auxiliary Circuits (40 auxiliary circuits i10x).

Optional IntelliCenter Control System Expansion Enclosures

Expansion enclosures can support all of the same high voltage connections as the main load to the Load Center or Power Center. A total of three enclosures can be added for a total of 40 auxiliary circuits that can support a maximum of four bodies of water. The Expansion enclosure supports the same COM port connections, and includes two actuators and a Load Center or Power Center. The Expansion enclosure can be expanded to include up to five actuators (with valve module P/N 520285). Refer to the IntelliCenter Control System Expansion Kit Installation Guide (P/N 520471) for more information.



1 or 2 bodies of water (3 Expansion enclosures):		3 or 4 bodies of water (3 Expansion enclosures):	
OCP0:	Main Circuit board - i5P capability	OCP0:	Master Motherboard - i5P capability. Has to use one of the following Personality Cards: i5PS, i8PS, i10PS or i10D
EXP1:	Exp Motherboard - i5X or i10X	OCP1:	Motherboard - i5P + any Personality Card. Can use any of the 6 Personality Cards. Note: Motherboard in OCP1 same as OCP0 (OCP0 is Master)
EXP2:	Exp Motherboard - i5X or i10X	EXP1:	Exp Motherboard - i5X or i10X
EXP3:	Exp Motherboard - i5X or i10X	EXP2:	Exp Motherboard - i5X or i10X

- Main Load Center or Power Center (all models) = 2 (A & B)
- There are six (6) valves = 6 (C, D, E, F, G, H)
- Three (3) Expansion enclosures total
- One Valve module on Main Load Center (valve expansion card)

IntelliCenter® Control System Personality Kit Contents

The following items are included in the IntelliCenter Control System Personality Kit. If any item is missing or damaged in the IntelliCenter kit, contact your authorized dealer, or contact Pentair Technical Support (800.831.7133).

- An IntelliCenter interface Outdoor Control Panel. Includes a motherboard and a Personality circuit board.
- Power Relays - i5P, i5PS, Qty. 0, i8P, i8PS, Qty. 3, i10P, i10PS, i10D, Qty 5, i5x, Qty. 0, i10x, Qty. 5 - NOTE: 5 relays are provided in the Common Load Center or Power Center
- Valve Actuators – Qty. 2 (Models i5PS, i8PS, i10PS)
- Temperature Sensors – Water Sensor (25 foot cable, o-ring and hose clamp), Qty. 1, For i10D only, Qty. 2 are provided. Air Sensor (with short cable).
- Wiring Diagram Label
- Common Load Center or Power Center parts bag: Includes relay screws.
- Label Sheet - A set of adhesive labels for custom identification (used to label the outdoor control panel buttons). Use a pair of fine-tip tweezers to remove the labels from the sheet.
- IntelliCenter Personality Kit Installation Guide (this manual)

Optional IntelliCenter Control System Kit Contents

The following items are included in the IntelliCenter Control System kit which may also include the optional IntelliChlor® SCG.

- IntelliCenter Control System Outdoor Control Panel (mounted in the load center)
- IntelliCenter Control System Common Load Center enclosure
- Motorized valve actuators (P/N 263045), Qty. 2 (not included with single-body system or dual equipment)
- Temperature Sensors: Water Sensor (25 foot cable, o-ring and hose clamp), Qty. 1, For i10D only, Qty. 2 are provided. Air Sensor (with short cable).
- IntelliCenter Control System Installation Guide (this manual)

Optional Equipment

- IntelliChlor Salt Chlorine Generator model IC20 (P/N 520554) or IC40 (P/N 520555), Power Center (P/N 520556 – if not integrated into the Common Load Center)
 - IntelliChlor SCG User's Guide (P/N 520589)
- IntelliChem® Controller no-pump (P/N 521357), one-pump (P/N 522621), two-pump (P/N 522622)
 - IntelliChem Controller Installation and User's Guide (P/N 521363)

IntelliCenter Control System Upgrade Kits

- P/N 523472 - Easytouch® / Intellitouch® Control System Upgrade To IntelliCenter Control System (For Legacy Systems 2003-2012)
- P/N 522455 - Easytouch® / Intellitouch® Control System Upgrade To IntelliCenter Control System (For Systems 2012 or Newer)

IntelliCenter® Control System Replacement Parts List

Kit Next Gen i5P OCP PCBA w/ Faceplate CLC/CPC	P/N 523050
Kit Next Gen i5X Expansion PCBA w/ Faceplate CLC/CPC	P/N 523051
NG i5PS Personality PCBA	P/N 521936Z
NG i8P Personality PCBA	P/N 521977Z
NG i8PS Personality PCBA	P/N 521968Z
NG i10P Personality PCBA	P/N 521993Z
NG i10PS Personality PCBA	P/N 521873Z
NG i10D Personality PCBA	P/N 523029Z
NG i10X Expansion Card PCBA	P/N 522997Z
NG Faceplate, OCP, for CLC/CPC (with overlay)	P/N 522004Z
NG Faceplate, IT/ET OCP Upgrade, for CLC/CPC	P/N 522005Z

IntelliCenter Control System Accessory Equipment

IntelliCenter Control System Indoor Control Panel kit	P/N 522035
IntelliCenter Control System Wireless Control Panel kit	P/N 522036
IntelliCenter Control System Valve Expansion Card (PCBA)	P/N 522038Z
IntelliCenter Control System Pool Cover Interface Card (PCBA)	P/N 522039Z
SpaCommand® 10 Ten-Function Spa-Side remote, 150 ft. cable	P/N 521176
Two-Speed Three HP Relay up to three additional valve actuators	P/N 520198
Three HP Power Relay	P/N 520106
QuickTouch® four-function wireless remote kit with transceiver assembly	P/N 520148
QuickTouch II four-function wireless remote kit with transceiver assembly	P/N 521245
IntelliChem® Controller	P/N 521356
IntelliChlor® Acid Cleaning Kit	P/N 520670
IntelliChlor Spacer pass-through cell for new pool start-up	P/N 520588



IntelliCenter Control System
Indoor Control Panel (P/N 522035)
(maximum of two per system)



IntelliCenter Control System
Wireless Control Panel (P/N 522036)



SpaCommand® Spa-Side
Controller (P/N 521176)



QuickTouch® Wireless Controller
(P/N 521245)



IntelliChem® Controller (P/N 521356)

IntelliCenter® Control System Configurations and Models

PANEL:	TYPE:	CAPABILITY:	PANEL:	CAPABILITY:
OCP0	i5P	<p>i5P Capabilities:</p> <p>Single body of water (Pool or Spa) Filter pump relay + 4 AUX relays Valve A & B Heater control (Gas & Electric) Solar relay output 2-speed relay output Water, Air, Solar Sensor Two COM ports Ethernet port iS4 port</p> <p><i>Note: Pool/Spa Heater Connections - It does not matter which body of water is connected to each heater connector. The heater on the main i5P board is for body 1 (pool or spa), and the heater on the i10D board is for body 2 (pool or spa).</i></p>		
OCP0	i5PS	<p>i5PS Capabilities:</p> <p>Shared equipment (Pool and Spa) Intake & Return valves Same as i5P (see above for details)</p>		
OCP0	i8P	<p>i8P Capabilities:</p> <p>Single body of water (Pool or Spa) Filter pump relay + 7 AUX relays Same as i5P (see above for details)</p>		
OCP0	i8PS	<p>i8PS Capabilities:</p> <p>Shared equipment (Pool and Spa) Filter pump relay+ 7 AUX relays Intake & Return valves Same as i5P (see above for details)</p>		
OCP0	i10P	<p>i10P Capabilities:</p> <p>Single body of water (Pool or Spa)</p> <p>Filter pump relay+ 9 AUX relays</p> <p>Same as i5P (see i5P for details)</p>		
OCP0	i10PS	<p>i10PS Capabilities:</p> <p>Shared equipment (Pool and Spa)</p> <p>Filter pump relay+ 9 AUX relays</p> <p>Intake and Return valves Same as i5P (see i5P for details)</p>		
OCP0	i10D	<p>i10D Capabilities:</p> <p>Dual Bodies of water with separate Pumps, Filters and Heaters</p> <p><i>Note: Pool/Spa Heater Connections - It does not matter which body of water is connected to each heater connector. The heater on the main i5P board is for body 1 (pool or spa), and the heater on the i10D board is for body 2 (pool or spa).</i></p>		
				<p>1 or 2 bodies of water:</p> <p>OCP0: Main Circuit board - i5P capability</p> <p>EXP1: Exp Motherboard - i5X or i10X</p> <p>EXP2: Exp Motherboard - i5X or i10X</p> <p>EXP3: Exp Motherboard - i5X or i10X</p> <p>3 or 4 bodies of water:</p> <p>OCP0: Master Motherboard - i5P capability. Has to use one of these Personality Cards: i5PS, i8PS, i10PS or i10D</p> <p>OCP1: Motherboard - i5P + any Personality Card. Can use any of the 6 Personality Cards. Note: Motherboard in OCP1 same as OCP0 (OCP0 is Master)</p> <p>EXP2: Exp Motherboard - i5X or i10X</p> <p>EXP3: Exp Motherboard - i5X or i10X</p> <p>OCP1-4 VALVEXP Valve Expansion Card: 6 extra valve outputs (C, D, E, F, G, H)</p> <p>OCP1-4 A TO DXP(eg. Pool Cover) Analog/Digital Expansion Card: Allows external input for system control</p>

Troubleshooting - Error Messages/Error Codes

Device Type: Heater

Device Name: Gas Heater

Alert Type: Error

Alert Message	Note
5 Alarms in an hour	Note: Indicates 5 faults have occurred in 1 hour. This fault will automatically reset in one hour or can be manually reset by pressing the ON/OFF button. Press the ON/OFF button to clear the alarm. Check Heat Pump over the next few minutes/hours to see if alarm appears again. This alarm most likely caused the five alarms in one hour.
Brownout	Note: Check input voltage to the heat pump, supply voltage should be between 208 and 260 Volts. Or have technician inspect heat pump for bad transformer.
Communication Lost	Note: This usually indicates that the communication cable between UltraTemp and the automation system has been disrupted in some manner. Please check this wiring.
Defrost Temp Sensor Open	Note: Call technician to verify condition and connection of defrost temp sensor and/or control board.
defrost Temp Sensor Shorted	Note: Call technician to verify condition and connection of defrost temp sensor and/or control board.
High Refrigerant	Note: Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If equipped with an external bypass plumbing loop, ensure that the bypass valve is closed allowing water to flow through the heat pump. If these troubleshooting steps do not resolve the problem, call technician.
High Water Temperature	Note: Water temp is above 107°F. Call technician to verify operation of thermistor and/or control board.
Low Ambient Temperature	Note: **Automation Team: Which error code in the Heat Pump triggers this alarm?
Low Refrigerant	Note: Air and water temperatures may be too cold to operate the heat pump. Wait until temperatures warm up and see if unit operates. Also check to be sure that the area around the heat pump is not blocking air flow around the air coil of the heat pump. Check fan for proper operation. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Flow	Note: Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If equipped with an external bypass plumbing loop, ensure that the bypass valve is closed allowing water to flow through the heat pump. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Temperature	Note: Call technician to verify operation of thermistor and/or control board.
Pool and Spa remote inputs are both enabled	Note: Pool and Spa remote inputs are simultaneously energized. Call technician to correct wiring error.
Water Temp Sensor Open	Note: Verify connection to water temp sensor. Call technician to verify condition and connection of water temp sensor.
Water Temp Sensor Shorted	Note: Verify connection to water temp sensor. Call technician to verify condition and connection of water temp sensor.

Troubleshooting - Error Messages/Error Codes

Device Type: Heater

Device Name: Solar Heater

Alert Type: Error

Alert Message	Note
5 Alarms in an hour	Note: Indicates 5 faults have occurred in 1 hour. This fault will automatically reset in one hour or can be manually reset by pressing the ON/OFF button. Press the ON/OFF button to clear the alarm. Check Heat Pump over the next few minutes/hours to see if alarm appears again. This alarm most likely caused the five alarms in one hour.
Brownout	Note: Check input voltage to the heat pump, supply voltage should be between 208 and 260 Volts. Or have technician inspect heat pump for bad transformer.
Communication Lost	Note: This usually indicates that the communication cable between UltraTemp and the automation system has been disrupted in some manner. Please check this wiring.
Defrost Temp Sensor Open	Note: Call technician to verify condition and connection of defrost temp sensor and/or control board.
defrost Temp Sensor Shorted	Note: Call technician to verify condition and connection of defrost temp sensor and/or control board.
High Refrigerant	Note: Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If equipped with an external bypass plumbing loop, ensure that the bypass valve is closed allowing water to flow through the heat pump. If these troubleshooting steps do not resolve the problem, call technician.
High Water Temperature	Note: Water temp is above 107°F. Call technician to verify operation of thermistor and/or control board.
Low Ambient Temperature	Note: **Automation Team: Which error code in the Heat Pump triggers this alarm?
Low Refrigerant	Note: Air and water temperatures may be too cold to operate the heat pump. Wait until temperatures warm up and see if unit operates. Also check to be sure that the area around the heat pump is not blocking air flow around the air coil of the heat pump. Check fan for proper operation. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Flow	Note: Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If equipped with an external bypass plumbing loop, ensure that the bypass valve is closed allowing water to flow through the heat pump. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Temperature	Note: Call technician to verify operation of thermistor and/or control board.
Pool and Spa remote inputs are both enabled	Note: Pool and Spa remote inputs are simultaneously energized. Call technician to correct wiring error.
Water Temp Sensor Open	Note: Verify connection to water temp sensor. Call technician to verify condition and connection of water temp sensor.
Water Temp Sensor Shorted	Note: Verify connection to water temp sensor. Call technician to verify condition and connection of water temp sensor.

Troubleshooting - Error Messages/Error Codes

Device Type: Heater

Device Name: Hybrid

Alert Type: Error

Alert Message	Note
5 Alarms in an hour	Note: Indicates 5 faults have occurred in 1 hour. This fault will automatically reset in one hour or can be manually reset by pressing the ON/OFF button. Press the ON/OFF button to clear the alarm. Check Heat Pump over the next few minutes/hours to see if alarm appears again. This alarm most likely caused the five alarms in one hour.
Air Flow Switch	Note: Call technician to troubleshoot UltraTemp ETi Hybrid. CAUTION: High Voltage Checks. Observe extreme caution or call dealer or factory for advice before attempting to troubleshoot Electrical Box.
Automatic Gas Shut Off	Note: Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If these troubleshooting steps do not resolve the problem, call technician.
Brownout	Note: Check input voltage to the heat pump, supply voltage should be between 208 and 260 Volts. Or have technician inspect heat pump for bad transformer.
Communication Lost	Note: This usually indicates that the communication cable between UltraTemp ETi Hybrid and the automation system has been disrupted in some manner. Please check this wiring.
Condensate Filter	Note: Condensate neutralizer cartridge's effective lifetime has expired. Heater run time has met service interval for condensate neutralizer cartridge. Check pH of gas heater condensate. Replace as necessary and reset alarm/counter.
Condensate Float Switch	Note: Condensate float switch detects water in exhaust stack. Verify proper hose routing from heater base. Ensure there are no loops, kinks or elevated portions between hose exit and heater base. Correct as necessary. If checking the hose routing does not solve problem, call technician to troubleshoot.
Freeze Warning	Note: Ambient air temperature is too low for gas heater operation. Shut down and properly winterize heater. If ambient air temp is not low, call technician to troubleshoot.
High Limit Switch	Note: Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If these troubleshooting steps do not resolve the problem, call technician.
High Refrigerant	Note: Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If equipped with an external bypass plumbing loop, ensure that the bypass valve is closed allowing water to flow through the heat pump. Check fan for proper operation. If these troubleshooting steps do not resolve the problem, call technician.
High Water Temperature	Note: Water temp is above 107°F. Call technician to verify operation of thermistor and/or control board.
ICM Fault	Note: Call technician to troubleshoot UltraTemp ETi Hybrid. CAUTION: High Voltage Checks. Observe extreme caution or call dealer or factory for advice before attempting to Troubleshoot Electrical Box.
Low Ambient Temperature	Note: **Automation Team: Which error code in the UltraTemp ETi Hybrid triggers this alarm?

Troubleshooting - Error Messages/Error Codes

Device Type: Heater

Device Name: Hybrid

Alert Type: Error

Alert Message	Note
Low Refrigerant	Note: Air and water temperatures may be too cold to operate the heat pump. Wait until temperatures warm up and see if unit operates. Also check to be sure that the area around the heat pump is not blocking air flow around the air coil of the heat pump. Check fan for proper operation. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Flow	Note: Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Temperature	Note: Call technician to verify operation of thermistor and/or control board.
Stack Flue High Temp	Note: Check exhaust vent for obstruction. Verify proper water flow to heater. If these troubleshooting steps do not resolve the problem, call technician.
Stack Flue Open/Short	Note: Call technician to verify condition and connection of stack flue sensor and/or control board.
Stack Flue Runaway	Note: **Automation Team: Which error code in the Heat Pump triggers this alarm?
Suction Temperature Sensor Open/Short	Note: Call technician to verify operation of defrost temp sensor and/or control board.
Thermal Fuse	Note: Thermal fuse is open. Call technician to troubleshoot.
Water Temperature Sensor Open/Short	Note: Call technician to verify operation of thermistor and/or control board.

Troubleshooting - Error Messages/Error Codes

Device Type: Heater

Device Name: UltraTemp

Alert Type: Error

Alert Message	Note
Brownout	Note: [Description Alert] Brownout
High Refrigerant Level	Note: [Description Alert] High Refrigerant Level
Low Refrigerant Level	Note: [Description Alert] Low Refrigerant Level
Five Alarms in an hour	Note: [Description Alert] Five Alarms in an hour
Low Ambient Temperature	Note: [Description Alert] Low Ambient Temperature
High Water Temperature	Note: [Description Alert] High Water Temperature
Low Water Temperature	Note: [Description Alert] Low Water Temperature
Low Water Flow	Note: [Description Alert] Low Water Flow
Pool and Spa remote inputs are both enabled	Note: [Description Alert] Pool and Spa remote inputs are both enabled
Water Temperature Sensor Open	Note: [Description Alert] Water Temperature Sensor Open
Water Temperature Sensor shorted	Note: [Description Alert] Water Temperature Sensor shorted
Defrost Temperature Sensor Open	Note: [Description Alert] Defrost Temperature Sensor Open
Defrost Temperature Sensor shorted	Note: [Description Alert] Defrost Temperature Sensor shorted
Communication Lost	Note: [Description Alert] Communication Lost

Troubleshooting - Error Messages/Error Codes

Device Type: Heater

Device Name: Max-E-Therm

Alert Type: Error

Alert Message	Note
Water Pressure Switch	Note: [Insufficient water flow rate. Please increase the water flow. Inspect the pump basket to remove debris. Eliminate other obstructions for water to flow] Water Pressure Switch
High Limit Switch	Note: [Water outlet has exceed 135°F. Verify water flow rate is above minimum. Service pump and filter to restore proper flow. Verify water inlet temperature is below 104°F. Verify internal bypass valve, thermal governor and heat exchanger for blockage] High Limit Switch
Air Flow Switch	Note: [Insufficient blower air flow. Verify blower operation]. Check for any blockage in the blower intake, heat exchanger, and exhaust. Air Flow Switch
Auto Gas Shutoff Switch	Note: [Water outlet has exceed 135°F. Verify water flow rate is above minimum. Service pump and filter to restore proper flow. Verify water inlet temperature is below 104°F. Verify internal bypass valve, thermal governor and heat exchanger for blockage] Auto Gas Shutoff Switch
Ignition Control Error	Note: [Contact your pool professional] Ignition Control Error
Stack Flu Sensor Error Alarm	Note: [Excessive stack flue temperature. Contact your pool professional] Stack Flu Sensor Error Alarm
Stack Flu Sensor Open Alarm	Note: [Contact pool professional to verify condition and connection of flue gas sensor] Stack Flu Sensor Open Alarm
Stack Flu Sensor Short Alarm	Note: [Contact pool professional to verify condition and connection of flue gas sensor] Stack Flu Sensor Short Alarm
Water Sensor Open Alarm	Note: [Contact pool professional to verify condition and connection of water sensor] Water Sensor Open Alarm
Water Sensor Short Alarm	Note: [Contact pool professional to verify condition and connection of water sensor] Water Sensor Short Alarm
Air Flow Fault Alarm	Note: [[Insufficient blower air flow. Verify blower operation. Check for any blockage in the blower intake, heat exchanger, and exhaust. Contact pool professional to verify condition and connection of air flow switch] Air Flow Fault Alarm
Flame No Call For Heat Alarm	Note: [Contact your pool professional] Flame No Call For Heat Alarm
Ignition Lockout Alarm	Note: [Contact your pool professional] Ignition Lockout Alarm
Weak Flame Alarm	Note: [Flame strength is low. Contact pool professional] Weak Flame Alarm
Communication Lost	Note: [Description Alert] Communication Lost

Troubleshooting - Error Messages/Error Codes

Device Type: Heater

Device Name: MasterTemp

Alert Type: Error

Alert Message	Note
Water Pressure Switch	Note: [Insufficient water flow rate. Please increase the water flow. Inspect the pump basket to remove debris. Eliminate other obstructions for water to flow] Water Pressure Switch
High Limit Switch	Note: [Water outlet has exceed 135°F. Verify water flow rate is above minimum]. Service pump and filter to restore proper flow. Verify water inlet temperature is below 104°F. Verify internal bypass valve, thermal governor and heat exchanger for blockage] High Limit Switch
Air Flow Switch	Note: [Insufficient blower air flow. Verify blower operation. Check for any blockage in the blower intake, heat exchanger, and exhaust] Air Flow Switch
Auto Gas Shutoff Switch	Note: [Water outlet has exceed 135°F. Verify water flow rate is above minimum. Service pump and filter to restore proper flow. Verify water inlet temperature is below 104°F. Verify internal bypass valve, thermal governor and heat exchanger for blockage] Auto Gas Shutoff Switch
Ignition Control Error	Note: [Contact your pool professional] Ignition Control Error
Stack Flu Sensor Error Alarm	Note: [Excessive stack flue temperature. Contact your pool professional] Stack Flu Sensor Error Alarm
Stack Flu Sensor Open Alarm	Note: [Contact pool professional to verify condition and connection of flue gas sensor] Stack Flu Sensor Open Alarm
Stack Flu Sensor Short Alarm	Note: [Contact pool professional to verify condition and connection of flue gas sensor] Stack Flu Sensor Short Alarm
Water Sensor Open Alarm	Note: [Contact pool professional to verify condition and connection of water sensor] Water Sensor Open Alarm
Water Sensor Short Alarm	Note: [Contact pool professional to verify condition and connection of water sensor] Water Sensor Short Alarm
Air Flow Fault Alarm	Note: [[Insufficient blower air flow. Verify blower operation. Check for any blockage in the blower intake, heat exchanger, and exhaust. Contact pool professional to verify condition and connection of air flow switch] Air Flow Fault Alarm
Flame No Call For Heat Alarm	Note: [Contact your pool professional] Flame No Call For Heat Alarm
Ignition Lockout Alarm	Note: [Contact your pool professional] Ignition Lockout Alarm
Weak Flame Alarm	Note: [Flame strength is low. Contact pool professional] Weak Flame Alarm
Communication Lost	Note: [Description Alert] Communication Lost

Troubleshooting - Error Messages/Error Codes

Device Type: ICHEM

Device Name: IntelliChem

Alert Type: Error

Alert Message	Note
Auto Calibration Failed	Auto Calibration Failed
Check ORP Container	Note: IntelliChem has indicated that your ORP chemical tank is running low. It may be time to refill it.
Check pH Container	Note: IntelliChem has indicated that your pH chemical tank is running low. It may be time to refill it.
Communication Lost	Note: IntelliChem has lost communication with the outdoor control panel. Please check that the filter pump relay is active and that the communication cable is wired properly.
Invalid Settings	Invalid Settings
ORP Feed Limit	Note: IntelliChem has several safe guards built into it to prevent too much chlorine from being dispensed into your pool. One of them is a daily maximum feed limit (usually in ounces). If IntelliChem reaches this limit, it will stop allowing chlorine from being dispensed. You may need to increase IntelliChem's daily ORP feed limit to prevent this alarm.
Peripheral Com Error	Peripheral Com Error
pH Feed Limit	Note: IntelliChem has several safe guards built into it to prevent too much muriatic acid from being dispensed into your pool. One of them is a daily maximum feed limit (usually in ounces). If IntelliChem reaches this limit, it will stop allowing muriatic acid or CO2 from being dispensed. You may need to increase IntelliChem's daily pH feed limit to prevent this alarm.
pH Lockout	Note: This means that IntelliChem is not able to keep your pH level at a low enough level (usually below 7.8) to not have a suppressive effect on your ORP level. To prevent IntelliChem from adding too much chlorine to your pool, IntelliChem has stopped adding chlorine until your pH level is decreased. This usually happens when your pH tank has run out of muriatic acid or your CO2 tank is empty.

Troubleshooting - Error Messages/Error Codes

Device Type: ICHEM

Device Name: IntelliChem

Alert Type: Warning

Alert Message	Note
pH Low	Note: IntelliChem pH reading is below 7.2 (typical good range is 7.2 to 7.6). It's rare for pools to stay below the 7.2 pH level. You may need to add a pH up chemical to your pool if the level doesn't rise over time. Please consult your pool professional for a recommended action.
No Flow	Note: The IntelliChem flow switch has indicated there is no flow to the flow cell where the pH and ORP probes are located. This can be caused by a dirty/ clogged pool filter or IntelliChem prefilter or too slow of a pump speed.
ORP High	Note: IntelliChem ORP reading is above 750. If your pool consistently measures above 750 ORP and a manual chlorine reading is above 3ppm, you should decrease your ORP set point to get your chlorine PPM into the desired 1-3 ppm range.
ORP Low	Note: IntelliChem will alert when the ORP level is below 650. If your pool consistently measures below 650 and a chlorine PPM reading is below 1 ppm, you may consider increasing your ORP set point to get your chlorine PPM into the recommended 1-3 ppm range. Also note that ORP probes take at least an hour before the reading stabilizes. It is perfectly normal to start the day at a very low 400-600 ORP reading. Similarly, the probe will read on the high side in the late afternoon and evening hours after the sun stops hitting the pool.
pH High	Note: IntelliChem will alert when the pH is above the 7.6 pH level (typical good range is 7.2 to 7.6). This could be temporary as IntelliChem signals your muriatic acid or CO2 feeder to add more to your pool to lower the pH level. If the pH level doesn't lower, this usually means that your acid or CO2 tank may be empty. Otherwise, you may need to increase IntelliChem's dose amount, lower the mixing time, or change the sensitivity to High.

Troubleshooting - Error Messages/Error Codes

Device Type: ICHEM

Device Name: IntelliChlor

Alert Type: Error

Alert Message	Note
Clean & Inspect Cell	Note: IntelliChlor has indicated that it senses buildup on its chlorine generating cell blades which is hampering its ability to make chlorine. This is a normal occurrence that happens over time. This calcium buildup can be eliminated by turning off your filter pump, removing your salt cell from the plumbing, and spraying a garden hose on the jet setting to remove the excess calcium buildup inside the cell. You can also do an acid wash per the instructions in the IntelliChlor manual.
Cold Water Cutoff	Note: IntelliChlor won't produced chlorine in water temperatures below 52F degrees. When the water is this cold, you should manually add chlorine to your pool, if needed.
Communication Lost	Note: This usually indicates that the 4-wire communication cable between IntelliChlor and IntelliChem has been disrupted in some manner. Please check this wiring.
Very Low Salt	Note: IntelliChlor's salt level reading is below 2650. IntelliChlor's optimum salt level is 3,450 ppm, so salt needs to be added to your pool to raise the PPM to the IntelliChlor target. One 40 lb bag of salt will raise your salt ppm by approximately 500 in a 10,000 gallon pool and by 200 in a 25,000 gallon pool. Tip: Salt and stabilizer only decrease from splash out or dilution. So if your salt level is low, your stabilizer level is probably low also
Low Salt	Note: IntelliChlor's salt level reading is below 2850. IntelliChlor's optimum salt level is 3,450 ppm, so salt needs to be added to your pool to raise the PPM to the IntelliChlor target. One 40 lb bag of salt will raise your salt ppm by approximately 500 in a 10,000 gallon pool and by 200 in a 25,000 gallon pool. Tip: Salt and stabilizer only decrease from splash out or dilution. So if your salt level is low, your stabilizer level is probably low also.

Troubleshooting - Error Messages/Error Codes

Device Type: PUMP

Device Name: VF Alert Type: Error

Alert Message	Note
Communication Lost	Note: This indicates that IntelliCenter is not able to communicate with IntelliFlo via the 50 foot pump communication cable. Please check the pump cable's green and yellow wires are inserted correctly in one of the IntelliCenter COM ports. Also make sure the cable is securely attached into the side of the IntelliFlo pump.
Drive Over Temperature	Note: The IntelliFlo pump has sensed that it is getting too hot. Please make sure that the back of the pump is clear of debris and dirt. In very hot climates like Arizona, it may help to shield the pump from direct sunlight.
Over Current	Note: IntelliFlo has sensed that it is receiving too much current. It is recommended that you contact your pool professional and/or electrician.
Over Voltage	Note: IntelliFlo has sensed that it is receiving too much voltage. It is recommended that you contact your pool professional and/or electrician.
Power Outage	Note: IntelliFlo has sensed that a power outage occurred.
Priming Alarm	Note: The IntelliFlo pump is having trouble priming. Ensure that the water level of the pool is high enough to fill the skimmer basket. Also check to make sure your skimmer baskets and pump basket are not clogged with leaves or debris. Make sure to bleed air out of the top of your filter as the pump is priming or when running. Always exercise caution when you are working in close proximity to working pool pumps and filters that are under pressure.
Drive Temperature	Note: The IntelliFlo pump has sensed that it is getting too hot. Please make sure that the back of the pump is clear of debris and dirt. In very hot climates like Arizona, it may help to shield the pump from direct sunlight.

Troubleshooting - Error Messages/Error Codes

Device Type: PUMP

Device Name: VS Alert Type: Error

Alert Message	Note
Over Current	Note: IntelliFlo has sensed that it is receiving too much current. It is recommended that you contact your pool professional and/or electrician.
Over Voltage	Note: IntelliFlo has sensed that it is receiving too much voltage. It is recommended that you contact your pool professional and/or electrician.
Power Outage	Note: IntelliFlo has sensed that a power outage occurred.
Priming Alarm	Note: The IntelliFlo pump is having trouble priming. Ensure that the water level of the pool is high enough to fill the skimmer basket. Also check to make sure your skimmer baskets and pump basket are not clogged with leaves or debris. Make sure to bleed air out of the top of your filter as the pump is priming or when running. Always exercise caution when your are working in close proximity to working pool pumps and filters that are under pressure.

Drive Temperature	Note: The IntelliFlo pump has sensed that it is getting too hot. Please make sure that the back of the pump is clear of debris and dirt. In very hot climates like Arizona, it may help to shield the pump from direct sunlight.
-------------------	--

Over Current	Note: IntelliFlo has sensed that it is receiving too much current. It is recommended that you contact your pool professional and/or electrician.
Over Voltage	Note: IntelliFlo has sensed that it is receiving too much voltage. It is recommended that you contact your pool professional and/or electrician.
Power Outage	Note: IntelliFlo has sensed that a power outage occurred.
Priming Alarm	Note: The IntelliFlo pump is having trouble priming. Ensure that the water level of the pool is high enough to fill the skimmer basket. Also check to make sure your skimmer baskets and pump basket are not clogged with leaves or debris. Make sure to bleed air out of the top of your filter as the pump is priming or when running. Always exercise caution when your are working in close proximity to working pool pumps and filters that are under pressure.

Drive Temperature	Note: The IntelliFlo pump has sensed that it is getting too hot. Please make sure that the back of the pump is clear of debris and dirt. In very hot climates like Arizona, it may help to shield the pump from direct sunlight.
-------------------	--

Plumbing Requirements

It is important that the pool and spa plumbing system be in accordance with local codes and the Recommended Hydraulic Schematics (page 55 and 56). Before starting, please review the diagrams and the following recommended guidelines:

- 1 The spa should be at or above the level of the pool.

If the spa is attached to the pool, provide a dam between the two bodies of water to allow the spa to overflow into the pool. If the spa is not attached to the pool, an overflow, sufficient in size to carry a full pump-flow, must be installed at the water level in the spa.

- 2 Plumb a three-port **Intake Valve** on the suction-side of the filter pump, so that the center port of the valve is connected to the pump inlet. Connect the spa suction to one side of the Intake Valve, and the pool suction to the other side.

- 3 Plumb a three-port **Return Valve** on the return-side of the heater, so that the return water will enter the valve through the center port.

Connect the spa return to one side of Return Valve, and the pool return to the other side.

- 4 If required, install a spa makeup line (consisting of a manual gate or ball valve, for elevated spas install a check valve) to bypass the pool return line. This will enable some of the chemically-balanced water from the pool to cycle through the spa. The manual valve will allow the amount of bypass to be adjusted.

- 5 If the spa is to be constructed in concrete, special provision should be made at this time for the installation of the Spa-Side remote control.

Select a convenient location in the deck or above water level in the spa wall (where the Spa-Side remote will not be submerged by the spa water), and install a 6 in to 12 in length of one inch PVC pipe to provide a receptacle for the Spa-Side remote. The pipe should be level and protrude beyond the finished surface of the spa. It will be cut back later at installation time. Reduce the pipe size down to ½ in or ¾ in conduit, and run it to the proposed Load/Power Center location at the equipment pad. Use sweep elbows for turns.

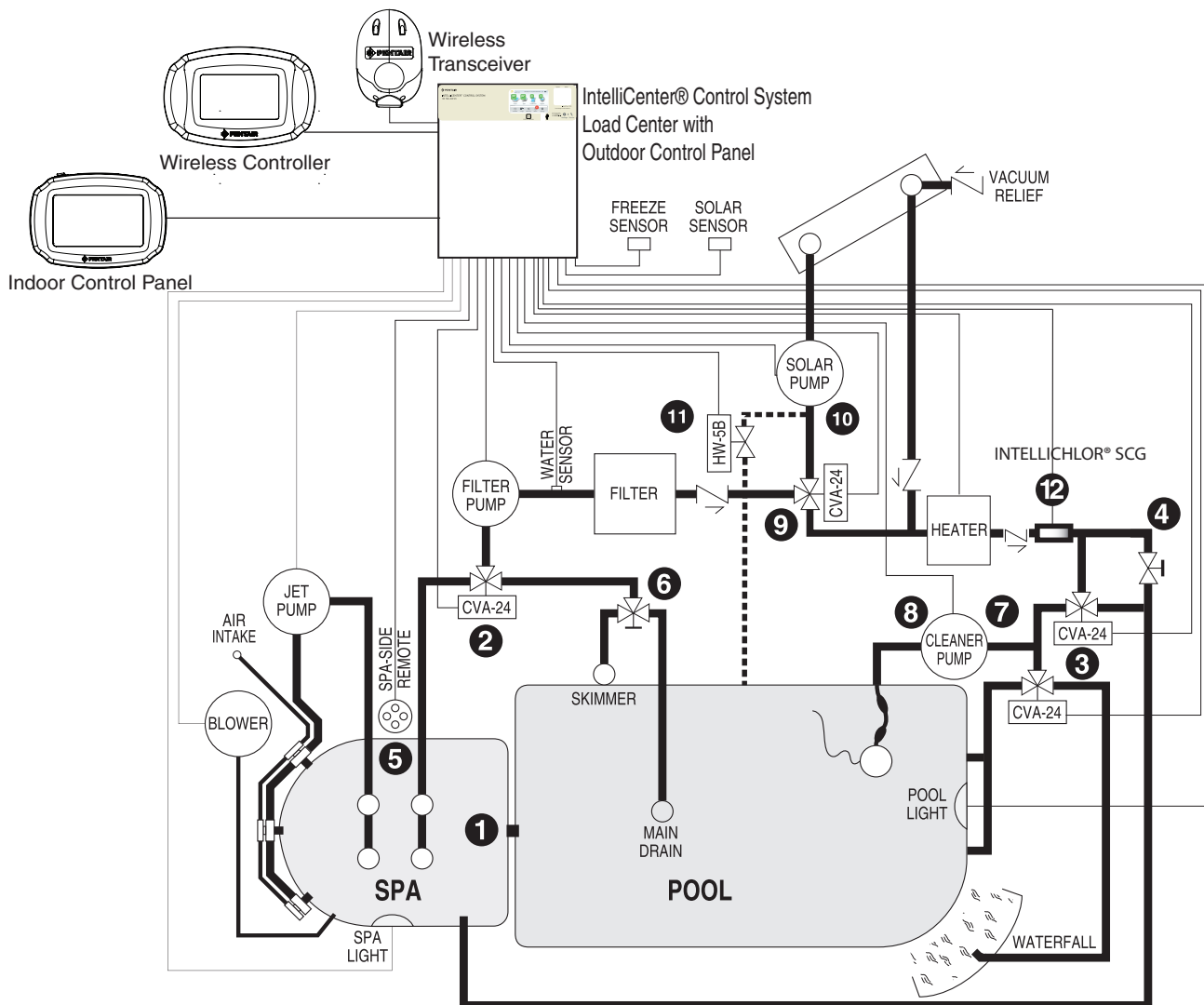
The Spa-Side remote will not be installed until the spa construction is completed.

- 6 For systems which incorporate a skimmer, it is possible to balance the amount of suction between the skimmer and main drain for maintenance purposes. This is easily accomplished by installing a manual three-port mixing valve at the suction line. Plumb one port to the skimmer and the other to the main drain.
- 7 If a “non-booster pump” pressure-side pool cleaner is being used, plumb a manual three-port valve between the filter pump and filter, with the third port plumbed to the pool cleaner line, and install a motorized two-port **Pool Cleaner Valve** at this line. The motorized valve will automatically open whenever the Control System activates the pool cleaner.
- 8 If a booster pump pool cleaner is being used, plumb the booster pump so that its suction-side is connected to the pool return, after the heater, and as close to the ground as practical.

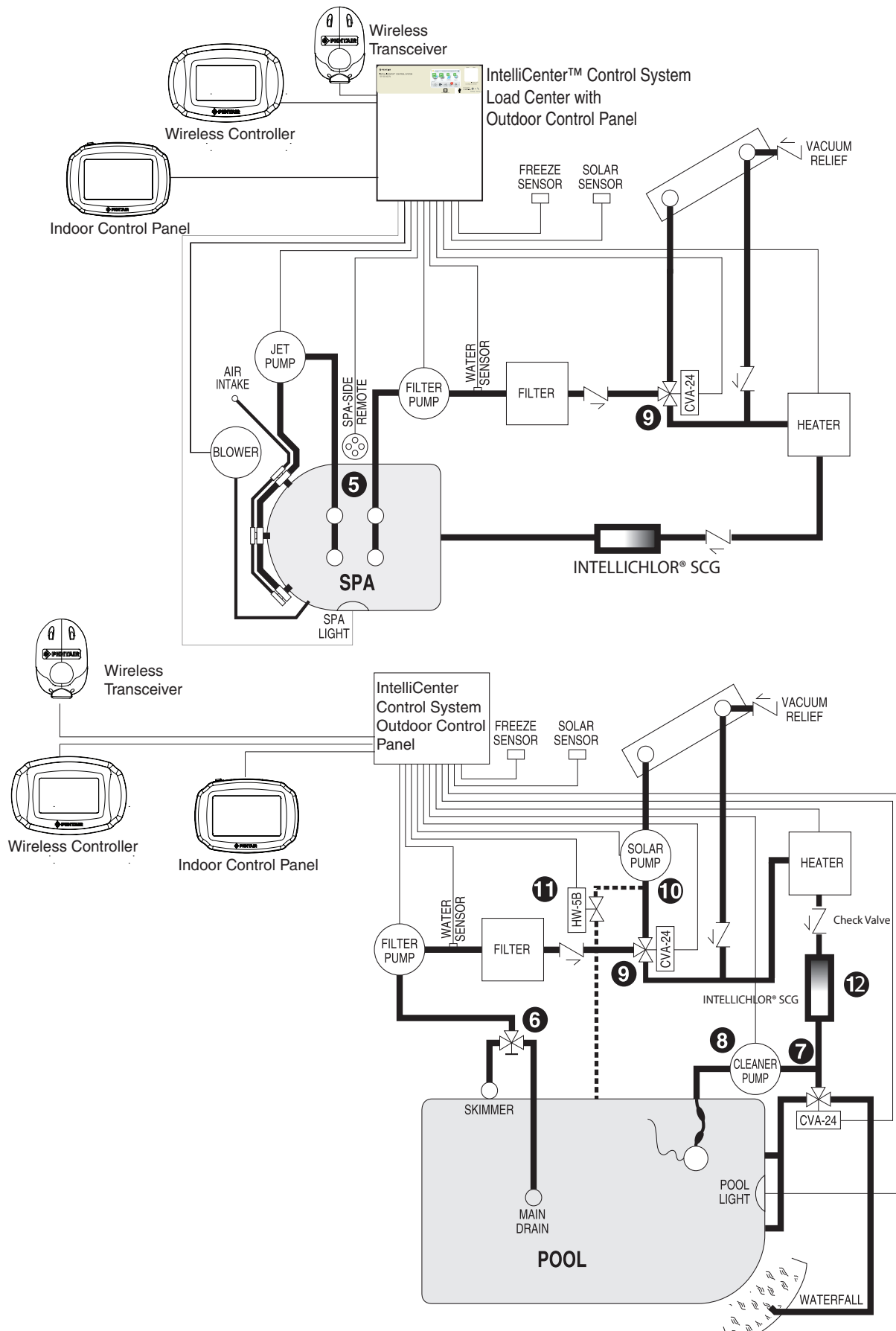
- 9 Plumb the solar feed and return lines between the filter and the heater. Install a three-port valve at the feed line. Use a solar valve (model SOL-2T), to allow automatic draining of the panels.
- 10 A solar booster pump should be used when the distance to the panels exceed 200 ft., or the panels are elevated higher than 25 ft.
- 11 Glazed solar panels require a drain valve (model HW-5B) to allow draining of the panels. This prevents damage from overheating water. Install a drain valve at the solar feed line and connect to the pool fill line.
- 12 **SCG systems only:** IntelliChlor® IC40 or IC20 Salt Chlorine Generator cell with check valve at the heater output. Refer to IntelliChlor Salt Chlorine Generator User's Guide (P/N 520589) for plumbing requirements.

Equipment Location

All equipment, with the exception of the spa-side remote, must be located at least 10 ft. from the water's edge.



Recommended Hydraulic Schematic for Shared Equipment System



Recommended Hydraulic Schematic for Single Body Systems

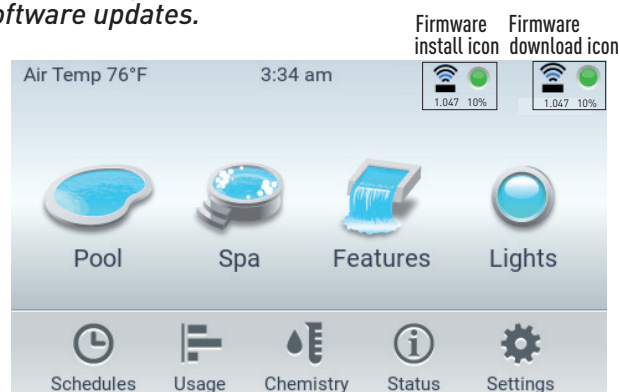
Over-The-Air (OTA) Firmware Updates

The IntelliCenter® Control System can receive firmware updates via your WiFi home wireless router. When available, firmware updates will automatically be downloaded to the Indoor and outdoor control panel, wireless remote and Expansion panels in silent mode. Once this process has been completed, in background while the system is operating, all Sub-Panels will display a message dialog indicating a new software update is ready to install. See below for more information.

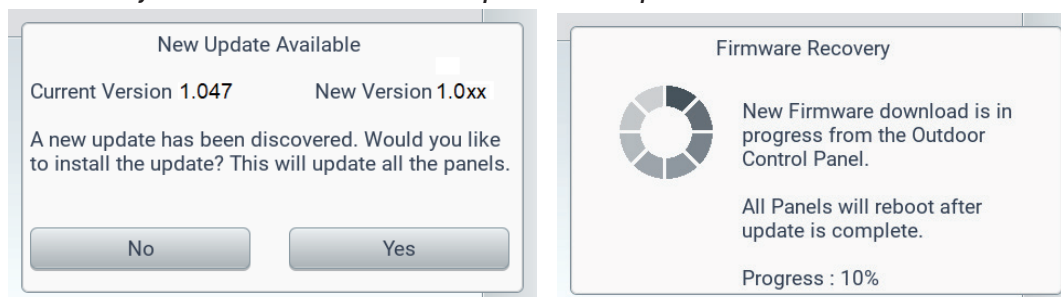
Note: For system firmware versions before version 0.20, be sure to configure (enable) all system Sub-Panels as described on page 86 to receive over-the-air software updates.

Home Screen (Outdoor Control Panel (OCP) master panel:

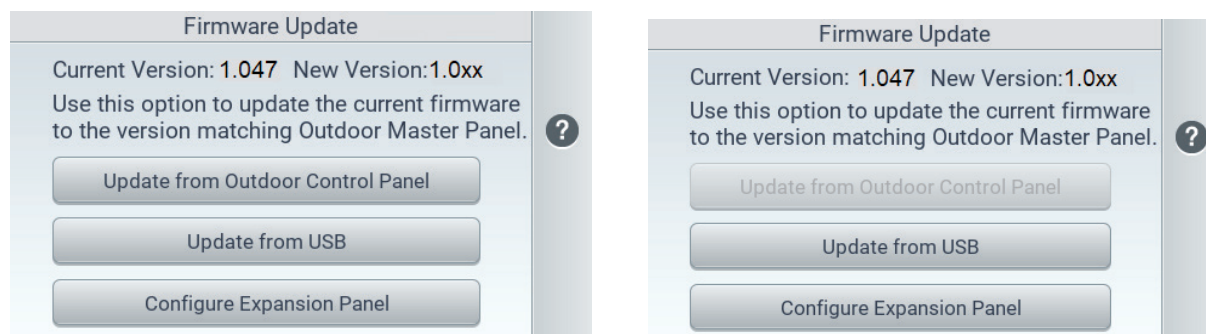
When an IntelliCenter Control System firmware update message dialog is displayed on the panels, it indicates that the firmware update has been downloaded to the system and is now ready to install. You can accept or reject the update:



- During the firmware download process to the Outdoor Control Panel (OCP) master panel, the download firmware version icon and the completion percentage is displayed (top right of OCP screen). After the download process has been completed the following dialog boxes are displayed.
- **No:** Do not accept the specific firmware update at this time. This update will not occur again until the next time new a firmware version update is available.
- **Yes:** Accept and start the firmware update for all configured panels. Note: If needed, see page 86 for panel configuration instructions. **Note: Pumps and other equipment operating on schedules will momentary reset after the firmware update is completed.**



- **Manual Firmware Update Option (USB) Update Later:** If you chose not to install the latest firmware update, you can copy it to a USB device from the outdoor panel and install it onto other panels that are mismatched and not yet updated.
- **Download Firmware Updates from:** <http://www.pentair.com/poolsoftwaredownloads>
If you chose not to install the latest firmware update when it was available, you can download the latest version from the link shown above, then copy it to a USB device from the outdoor panel and install it onto other Expansion panels that were not updated. **Note: If needed, be sure to configure (enable) all system Sub-Panels. See "Configure Expansion Panel" below.**



Over-The-Air (OTA) Firmware Version 2.xx

IntelliCenter 2.xx firmware features "auto-detect". During an OTA v2.xx firmware update, all installed IntelliCenter system panels (OCP, ICP, XCP, WCP) will automatically be updated. Also, the ETi250 heater is now included. Go to <http://www.pentair.com/poolsoftwaredownloads>.

The IntelliCenter2 app is available for:



Apple iOS



Android

Scan the QR code and check
for the latest IntelliCenter
Firmware and more.



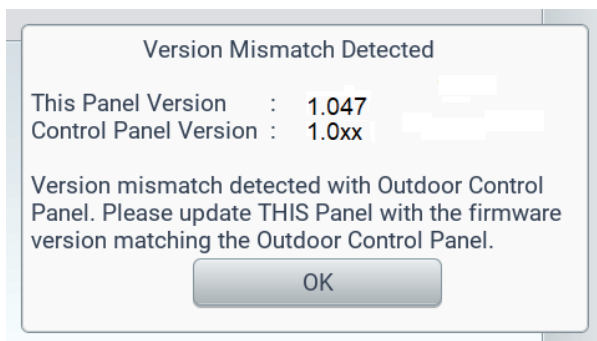
Over-The-Air (OTA) Firmware Updates (Panel Mismatch)

Mis-Match Firmware detected (on Sub-Panels): If a Firmware update was unsuccessfully installed on a sub-panel, a MIS-MATCH message is displayed ("Version Mismatch Detected") on the panel that does not match the firmware version on the Outdoor Control Panel (OCP) master panel.

Note: If for example the wireless remote was asleep when a firmware update was attempted, the system will indicate there is a firmware mis-match between the main OCP and wireless remote.

Firmware Update Dialog Box (manual USB option): From this dialog box update the mismatch panel as follow:

- Download the latest firmware version from: **Firmware Updates from <http://www.pentair.com/poolsoftwaredownloads>**. Copy this update file to a USB device.
- Tap "Update from USB" to install the latest firmware onto the mismatched panel.
- **Configure Expansion Panel:** Use this option to configure a Sub-Panel that is not configured to accept OTA firmware updates.



Enabling All System Panels (for software versions up to 1.047)

For software versions up to 1.047 the IntelliCenter Control System can receive software updates via your WiFi home wireless router. Software updates will automatically occur to the Indoor and outdoor control panel, wireless remote and Expansion panels in background while the system is operating. **Note: to receive over-the-air software updates, be sure to configure all the system panels as described below:**

Enable all System Panels: Outdoor Control Panel (OCP), (Indoor Control Panel (ICP), Expansion Panel (XCP) and Wireless Control Panel (WCP):

1. Configure the ICP on both OCP and ICP: From the Main Outdoor Control Panel Home screen, tap Settings > Advanced System Configuration > IntelliCenter Indoor Panel Setup > Indoor Panel #1 (Repeat if a second ICP (#2) is connected). Repeat this procedure again for the ICP, starting from the ICP Home Screen. Select Assign this Panel to Indoor Panel #1 (on the Indoor Panel Enable screen). If configuring a second ICP (#2), then select Assign this Panel to Indoor Panel #2.
2. Configure the WCP on both OCP and WCP: From the Main OCP Home screen, tap Settings > Advanced System Configuration > IntelliCenter Wireless Remote Setup. The IntelliCenter Wireless Remote Setup screen is displayed. Tap Enable Panel (On). Use the Wireless Channel button to select an address (default is 15). Note: Be sure to match the same Channel # for the WCP and OCP. Repeat this procedure again for the WCP, starting from the WCP Home Screen. Note: If the wireless channel number is changed, be sure to change the Wireless Repeater channel to the same channel number.
3. Configure the XCP from the OCP Home Screen (#1, #2, or #3 if system has more than 1 XCP):
 - a) tap Settings > Advanced System Configuration > Installation Setup > Body Configuration.
 - b) Select Expansion 1 (disabled) XCP1 (for XCP#1).
 - c) On the Panel Identification screen, select Enable/Disable and tap the Enable button.
 - d) Tap the Return button, then select i5x (5 Relays).
 - e) If the i10x kit is installed, select i10x on the Expansion Panel Daughter Card screen instead of i5x.
 - f) On the Expansion Panel Daughter Card screen, tap Return.
4. Configure Expansion Panels (XCP #1, #2, or #3):
 - a) Tap Settings > Advanced System Configuration > Installation Setup > Body Configuration. Repeat steps 3a to 3f above, except for 3c:
 - b) After selecting Enable/Disable select Assign this Panel to Expansion 1 (if this is XCP #1) and tap the Return button.
 - c) Repeat Steps 4a to 4b to configure XCP #2 and XCP #3
5. **Once all the Panels are configured (enable), check that the system panels have the same firmware version and are fully functional.**

IntelliCenter Control System App: This free app is available for Apple iOS and Android devices.

Important Note: Use following IntelliCenter Firmware V1.040 update instructions for a **FIRST TIME SYSTEM INSTALL** or after a **SYSTEM FACTORY RESET**. Enable all System Panels: Outdoor Control Panel (OCP), (Indoor Control Panel (ICP), Expansion Panel (XCP) and Wireless Control Panel (WCP): IntelliCenter® CONTROL SYSTEM FIRMWARE V1.040 UPDATE AVAILABLE ONLINE AT: <http://www.pentair.com/poolsoftwaredownloads>.

Glossary

The Control Panel: The IntelliCenter® Control System Outdoor Control Panel with flexible hinge. Installed in upper portion of IntelliCenter Control System Load Center.

EMI (Electromagnetic interference) filter: Protective circuit element that must be used between the IntelliChlor transformer and supply lines.

Expansion Kit: A kit that includes additional auxiliaries to an existing Personality Kit. Requires a Load Center or Power Center for each expansion kit.

Feature Circuits: Programmable circuits that may control relays and/or valve actuators. For details, see the IntelliCenter Control System Systems User's Guide (P/N 522461)

High Voltage Panel/Compartment: Removable panel for the high voltage compartment of IntelliCenter Load Center. The high voltage wiring including circuit breakers, relays, GFCI and optional IntelliChlor transformer/filter.

Indoor Control Panel: This 9 or 13 button remote controller with LCD (liquid crystal display) is wired to the control circuit board in the IntelliCenter Control System Load Center. The control panel can be wall mounted inside a house to control the IntelliCenter system.

IntelliChlor® (SCG): Salt Chlorine Generator. Uses a process known as electrolysis to produce sodium hypochlorite (liquid chlorine) from a low concentration of salt added to the pool water. Model IC 20 Cell (P/N 520554) for pools up to 20,000 U.S. gallons (75 liters) and model IC 40 Cell (P/N 520555) for pools up to 40,000 U.S. gallons (151 liters). The external IntelliChlor Salt Chlorine Generator Load Center (P/N 520556).

iS4 Remote Controller: Four function spa-side remote. Spa wall or deck mounted.

Load Center: Metal enclosure with power relays, transformer, and circuit breakers. Used for distributing power for controlling IntelliCenter Control System. Also known as the sub panel.

Low Voltage Compartment: Top compartment of Load Center or Power Center for all low voltage wiring.

Low Voltage Raceway: Vertical space in the left side of Power/Load Center for low voltage cabling.

Mud Box: Enclosure to provide mounting features for SpaCommand controller or iS10 spa-side remote that is cast into gunite, concrete, or other spa wall/deck construction.

Outdoor Control Panel: Control panel with flexible hinge installed in upper portion of Power/Load Center to control IntelliCenter Control System.

Personality Board: The circuit board mounted on top of the Outdoor Control Panel motherboard. The Personality board defines the system capabilities.

Personality Kit: Set of parts to define the capability of a system; may include: Outdoor Control Panel, temperature sensors, actuators, control panel, additional relays, actuators.

Power Center: Same as Load Center with the exception of the circuit breaker base.

Relay Circuits: The circuits that control the relays on the IntelliCenter Control System circuit board.

Salt Chlorine Generator (SCG): Automated pool chlorinator that sanitizes using salt water (see IntelliChlor Salt Chlorine Generator).

Glossary (continued)

Screw Terminal Connector: Removable connector that may attach to circuit board with multiple sockets to receive conductors from controllers and sensors; conductors held by screw terminals; multiple conductors of a small enough gauge (usually 22 AWG) may be coupled to a single socket of a terminal connector.

SpaCommand® Controller: Up to ten function spa-side remote with temperature changing capability. Can be spa wall or deck mounted. Connects to the Load center via RS-485 COM port.

Transceiver: Circuit board with attached antenna that can send and receive radio frequency (wireless) transmissions. Used with QuickTouch® II remote, and Wireless Control Panel.

Wireless Controller: Wireless controller for the IntelliCenter® Control System with all the functionality of the Indoor and Outdoor Control Panel. Connects to the Load center via RS-485 COM port.

Notes

Notes

Digital copies of all IntelliCenter manuals, as well as translated versions, can be found at www.pentair.com, or by scanning the provided QR code.

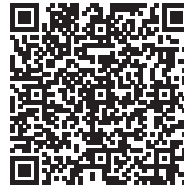
- *Installation Guide (P/N 522989)*
- *User's Guide (P/N 522990)*

Des copies numériques de tous les manuels IntelliCenter, ainsi que les versions traduites, peuvent être trouvées sur www.pentair.com, ou en scannant le code QR fourni.

- *Guide d'installation (P/N 522989)*
- *Guide d'utilisation (P/N 522990)*

Se pueden encontrar copias digitales de todos los manuales de IntelliCenter, así como versiones traducidas en www.pentair.com, o escaneando el código QR proporcionado.

- *Guía de instalación (P/N 522989)*
- *Guía del usuario (P/N 522990)*



1620 HAWKINS AVE., SANFORD, NC 27330 • (919) 566-8000
10951 WEST LOS ANGELES AVE., MOORPARK, CA 93021 • (805) 553-5000

All indicated Pentair trademarks and logos are property of Pentair. Third party registered and unregistered trademarks and logos are the property of their respective owners.

© 2022 Pentair. All rights reserved. WWW.PENTAIR.COM



P/N 522989 REV. H 10/3/22